PARTNERS IN APPRENTICESHIP

KEY TO THE FUTURE

THE REPORT OF THE
APPRENTICESHIP REVIEW COMMITTEE

PRINCE EDWARD ISLAND
CANADA

PREPARED FOR
THE
MINISTER OF INDUSTRY

JUNE 1991

92-00574/

APPRENTICESHIP REVIEW COMMITTEE

FINAL REPORT

JUNE 1991

EXECUTIVE SUMMARY

The Review Committee examined the Prince Edward Island Department of Industry's apprenticeship program with reference to recent economic and demographic changes, technological advances, and stresses on the program's financial support structure. Specific criticisms, such as the conservativeness and inflexibility of apprenticeship, its poor image, lack of currency, and problematic ratio requirements, were also reviewed. The report makes 71 recommendations in the areas of recruitment and selection procedures, in-school and on-the-job training, administration and enabling legislation, and financial partnerships. Recommendations reinforce apprenticeship's perceived strengths, such as its well established communications infrastructure, and make suggestions to improve recruitment (including the image of the trades and educational pre-requisites), program currency, flexibility, quality control, equity of access, and financial arrangements. It stressed the need for greater recognition and expansion of activities among the partners in apprenticeship training - industry, training institutions, schools units, provincial and federal governments. The report also recommends that apprenticeship should be an integral part of future training plans and economic development strategies in P.E.I.

CONSOLIDATED LIST OF RECOMMENDATIONS

RECRUITMENT AND SELECTION

A. Image of the Trades

1. That the Department of Industry increase promotion to improve the image for the trades.

2. That the Department of Industry recommend that the Government of Canada embark on a national campaign to enhance the image of the trades.

3. That the Department of Industry encourage educational authorities to continue to develop programs and curricula in support of trades occupations.

4. That the Department of Industry encourage educational authorities to make trades training electives equally accessible to academic, vocational, and general student populations and to present trades training in a positive light.

5. That the Department of Industry encourage the Department of Education to assume a leadership and coordinating role in developing improved career guidance programs in support of trades occupations.

6. That the Department of Industry encourage non-governmental trades organizations to engage in promotional activities to enhance the image of the trades.

B. Withdrawal Rates

7. That the Department of Industry conduct regular reviews of apprenticeship participation and withdrawal, and that the Department conduct exit interviews at the time of termination.

C. Screening Devices

8. That the Department of Industry expand its efforts to counsel candidates and their employers at the time of recruitment.

9. That the Department of Industry encourage candidates for apprenticeship training to enrol in pre-apprenticeship courses offered by Holland College.

10. That the Department of Industry encourage Holland College to carefully manage and closely monitor on-the-job placements for pre-apprenticeship students.

11. That the Department of Industry encourage Holland College to develop pre-apprenticeship training for all apprenticeable trades.

12. That the Department of Industry recognize probationary periods of six months for students completing and twelve months for students not completing pre-apprenticeship training.

D. Educational Pre-requisites

13. That the Department of Industry conduct a trade-specific review of educational pre-requisites for apprenticeable trades.

14. To allow persons without sufficient educational qualifications to enter apprenticeable trades, that the Department of Industry encourage the provincial and federal governments to put their full support behind adult basic education.

E. Compulsory Participation

15. That the the Department of Industry consider adoption of compulsory apprenticeship in trades where particpation is not already mandatory.

F. Demographic Trends

16. That the Department of Industry commission a study into the effects of demographics on labour markets for apprenticeable trades in P.E.I.

G. Equity of Access

17. That the Department of Industry issue a policy statement on its support of equity of access to non-traditional apprenticeable trades on the part of women and other designated groups.

18. That the Department of Industry and Employment and Immigration Canada jointly fund a program to promote equity objectives in apprenticeship.

19. That the Department of Industry promote a preferential hiring policy for equally qualified designated group members in public sector apprenticeships.

20. That the Department of Industry promotions unit encourage employee organizations, employers, and trades associations to create multi-employer apprenticeships for individual members of designated groups.

21. That the Department of Industry encourage these same individuals and organizations to offer financial assistance to designated group recruits and new graduates on the basis of need or professional excellence.

22. That the Department of Industry and Employment and Immigration Canada continue to expand upgrading, bridging, and counselling programs which allow women and other designated group members to enter apprenticeable trades.

H. Financial Considerations

23. That the Department of Industry work with local Employment and Immigration Canada officials within the framework of existing unemployment insurance regulations and procedures to improve the flow of information and income support to apprentices during in-school training.

24. That the Department of Industry encourage cooperation of interprovincial apprenticeship authorities to investigate alternative income support strategies.

25. To reduce financial hardships and disruptions caused by traditional Block Release training, that the Department of Industry encourage Holland College to experiment with alternative methods of course delivery for apprenticeable trades.

26. That the Department of Industry join other provincial apprenticeship authorities to recommend that the Government of Canada make changes to income tax legislation which would provide for tax credits and/or deductions for apprentices.

I. Apprenticeship and the Changing Economy

27. That the Department of Industry, on an experimental basis extend apprenticeship or features of apprenticeship to selected emerging, expanding, or adjusting industries .

IN SCHOOL TRAINING

A. Length of Program

28. That the Department of Industry review the length of Block Release training for each apprenticeable trade.

B. Financial Considerations

29. That the Department of Industry encourage government, employees, employers, trade and community service organizations, and individuals to offer scholarships, bursaries, or other financial support to apprentices.

30. That the Department of Industry increase out-of-province and Employment and Immigration Canada further increase in- and out-of-province travel allowances to apprentices to reflect actual costs.

C. Model of Course Delivery

31. That Holland College continue with its policy of consolidating apprenticeable trades instruction in single locations.

32. That the Department of Industry cooperate with provincial apprenticeship authorities in the Atlantic region to rationalize institutional resources and course offerings for apprenticeable trades.

33. That the Department of Industry work with Holland College and other training agencies to develop innovative models of course delivery to apprentices.

D. Curriculum

34. That Trade Advisory Committees composition reflect a balance of recent graduates and experienced tradespeople, large and small firms, and employee and employer interests.

35. That Holland College and the Department of Industry jointly appoint members to single, shared Trade Advisory Committees.

36. That Trade Advisory Committees meet at least once annually.

37. That Holland College and the Department of Industry ensure that instructors hired for Block Release have adequate preparation time; and that appropriate resource materials are available for such instructors.

E. Equipment

38. That, on an annual basis, Holland College, in consultation with Trade Advisory Committees and instructors, review the equipment required to support curriculum objectives in apprenticeable trades at Holland College campuses.

39. That Holland College, in consultation with Trade Advisory Committees and instructors, compile a list of equipment required now to bring apprenticeship training courses up to industry standards; and that the Department of Industry fund such extraordinary expenses through a one-time capital grant.

40. That Holland College explore innovative means of fulfilling on-going equipment requirements.

F. Quality of Instruction

41. That the Department of Industry and Holland College approach the Department of Education to request a review of the system of teacher licensing for trade and technical instructors.

42. That Holland College encourage full time trades instructors to return to the field for short term placements at least every five years.

43. That Holland College encourage short term instructors in apprenticeable trades to obtain teacher's certification.

ON THE JOB TRAINING

A. Curriculum

44. That the Department of Industry provide the on-the-job trainer with a more detailed description of the skills to be acquired by apprentices on the job site.

45. That, for the present, the Department of Industry uphold the principle of general apprenticeship training; and that the Department continue to monitor the trend to specialization in designated trades.

B. Quality of instruction

B. (i) Teaching "Qualifications"

46. That the Department of Industry establish a set of quantifiable on-the-job training criteria, and that prospective employers of apprentices be measured against those criteria at the time of registration.

47. That, in future, the Department of Industry consider issuing contracts of apprenticeship only when certified journeymen will supervise the training of apprentices on the job.

48. That the Department of Industry produce and circulate resource materials on teaching skills to employers and supervisors of apprentices.

49. That in-school trades curricula include a "train the trainer" module on instructional techniques.

B. (ii) Continuing education

50. That the Department of Industry, employee organizations, training agencies, and trades and employer associations promote continuing education for journeymen as part of their campaign to improve the image of the trades.

51. That the Department of Industry extend its "Certificate of Achievement" program to recognize post-certification training and that such training be included as an endorsement on journeymen's certificates of qualification.

52. That Holland College, in cooperation with manufacturers, employee organizations, and others, offer continuing education courses to journeymen on a variety of subjects and at a variety of times and locations.

B. (iii) Ratios

53. That the Apprenticeship Advisory Board continue to set and monitor ratios for all apprenticeable trades.

54. That the Department of Industry provide for stronger penalties for ratio violations in compulsory apprenticeable trades, and that these laws and regulations be strictly enforced by the Department and other responsible authorities.

B. (iv) Recognition of excellence

55. That the Department of Industry establish annual awards which recognize excellence in on-the-job training, and that trades organizations and other interested parties be encouraged to establish similiar awards.

C. Model of Course Delivery

56. That apprentices' on-the-job experience henceforth be measured in terms of skills to be acquired.

ADMINISTRATION AND LEGISLATION

A. National

57. That the Department of Industry continue to support the Interprovincial Standards Program and to recognize and offer apprenticeship training in all Red Seal trades.

58. That the Department of Industry recommend that the Interprovincial Standards program continue to expand its mandate to include cooperation on a broad range of matters of concern to apprenticeship in all Canadian provinces.

B. Provincial

59. That the Department of Industry make apprenticeship a more integral part of its economic development strategy.

60. That the Department of Industry encourage the provincial government to establish a framework for ongoing communications on apprenticeship within provincial government departments and agencies as well as external client groups.

61. That the Department of Industry encourage creation of apprenticeship training within provincial government departments and agencies.

C. Apprenticeship Branch

62. That the Department of Industry introduce provisions to broaden the mandate and change the composition of Trade Advisory Committees, and that such Trade Advisory Committees assume a more active role.

63. That the Department of Industry introduce provisions on the composition of the Apprenticeship Advisory Board which more accurately reflect the present and future needs of apprenticeship.

64. That the Department of Industry establish a formal procedure for designating new apprenticeable trades.

65. That the Department of Industry establish a formal procedure for determining core curriculum and areas of overlap in related apprenticeable trades.

66. That the Department of Industry revise apprenticeship legislation and program materials to reflect changes resulting from adoption of the recommendations contained in this report.

FINANCIAL PARTNERSHIPS

67. That all partners in apprenticeship recommend that the Government of Canada and the Canadian Labour Force Devlopment Board give apprenticeship a high priority and maintain interprovincial consistency of apprenticeship programs.

68. That there should be a continuing strong federal commitment for apprenticeship, expressed financially and through supporting programs.

69. That the province of Prince Edward Island make a stronger financial commitment to apprenticeship.

70. That the Department of Industry explore innovative means of providing additional financial support to apprenticeship.

71. That the Department of Industry and other partners in apprenticeship recommend that the Government of Canada introduce changes to income tax legislation which would give greater recognition to personal and corporate investment in human resource development, including apprenticeship training programs.

TABLE OF CONTENTS

Executive Summary i

Consolidated List of Recommendations ii

Preface 1

Chapter One: Apprenticeship Yesterday and Today 4

Chapter Two: Methodology 10

Chapter Three: Recruitment and Selection 12

A. Image of the Trades 13

B. Withdrawal Rates 18

C. Screening Devices 19

D. Educational Pre-requisites 22

E. Compulsory Participation 24

F. Demographic Trends 25

G. Equity of Access 26

H. Financial Considerations 29

I. Apprenticeship and the Changing Economy 31

Chapter Four: In School Training 37

A. Length of Program 38

B. Financial Considerations 39

C. Model of Course Delivery 41

D. Curriculum 43

E. Equipment 46

F. Quality of Instruction 48

Chapter Five: On the Job Training 51

A. Curriculum 53

B. Quality of Instruction 55

B. i) Teaching Qualifications 55

B. ii) Continuing Education 58

B. iii) Ratios 60

Recognition of Excellence 62

C. Model of Course Delivery 62

Chapter Six: Administration and Legislation 64

A. National Picture...............................65

B. Provincial Picture.............................67

C. Apprenticeship Branch 69

Chapter Seven: Financial Partnerships 74

A. Federal Commitment.............................75

B. Provincial Commitment..........................76

C. Tax Legislation................................79

Chapter Eight: The Future of Apprenticeship 82

Appendix A: Select Bibliography of Works Consulted 85

Appendix B: List of Submissions and Interviews 89

Appendix C: Highlights of Survey Questionnaires 90

Appendix D: Acknowledgements and Committee Membership 98

PREFACE

In December of 1990, the Prince Edward Island Department of Industry commissioned a thorough-going review of its apprenticeship program and appointed eleven committee members to conduct that review. In its original project proposal, the Department set out the rationale for its study as follows:

a) Periodic reviews should be carried out on all training programs. The Apprenticeship Program has been in place for twenty-seven years and the last major review was completed in 1975, fifteen years ago.

b) Rapidly advancing technology in the trades and the everchanging labour market, raise concerns about the existing program's ability to provide industry with the skilled tradespersons needed in the 1990's.

c) The Federal Government's policy to cap or reduce funding to apprenticeship training is forcing provinces to look at other sources of funds and more innovative ways to deliver the training.

d) The aging of existing tradespersons and declining number of youth available to the trades are problems that require updated measures in the recruitment and retention of apprentices.

e) Concerns associated with the ratio of journeymen to apprentices require more in-depth study in relation to overall apprenticeship training procedures.

As the study progressed, Committee members identified several additional factors and areas of concern. For example, in early 1990, Employment and Immigration Canada announced the creation of a Canadian Labour Force Development Board (and regional affiliate boards). The advent of the Board may mean profound changes to the political and financial support system for training in this country. After 1993, the federal government proposes that the Canadian Labour Force Development Board will be responsible for administering federal contributions to all types of skill training, including apprenticeship.

It is not clear whether the Canadian Labour Force Development Board will continue the federal course of giving preferential financial treatment to those persons and industries who are "most in need"[1] or pursue the stated federal objective of increasing the private sector's involvement in training[2]. Either policy might result in a continuing cap or reduction of federal funds available to apprenticeship. A fresh, market-driven approach might also give training programs a much needed shot in the arm. Whatever the direction taken by the Canadian Labour Force Development Board, the immediacy of impending changes highlights the need for further study of apprenticeship.

The committee's studies also exposed several broad economic trends and specific criticisms as worthy of closer examination. Regarding the former, the committee tried to assess the effect of increasing globalization of markets, trades specialization, and structural changes to the economy on the curriculum of apprenticeship and on the trades served. Specific criticisms included charges that apprenticeship has a serious "image" problem, that it is conservative and old-fashioned, that it is sorely out of date, that it adapts poorly to a changing labour market, that it has not welcomed the participation of women and other non-traditional apprentices, and that flaws in program design have led to an inordinately high drop-out rate[3]. For both economic trends and program criticisms, the Review Committee tried to establish the degree of their validity and impact on P.E.I.

Finally, as research progressed, the Committee became increasingly aware of one unstated but implied justification for a review of apprenticeship. The review was also necessary because of the importance of human resource development to overall economic and social policy. In recent years, the environmental movement has shown us how delicate and limited are our natural resources. In the light of that fragility and those limits, especially in a small province such as Prince Edward Island, the development of human resources becomes doubly important. Apprenticeship must be an integral part of that development strategy.

The positions taken in this report are the result of ongoing, often spirited, dialogue between committee members who represented a wide variety of interests. The review panel acknowledges that its suggestions are numerous, and that some are bound to be controversial; in some cases, full consensus was not reached. It is nonetheless the hope of the Committee that the 71 recommendations contained in this report are pragmatic, fair, and reasonable, and that they will give useful direction to apprenticeship policy for years to come.

NOTES: PREFACE

[1] Those "most in need" are skills shortage occupations and designated group members (women, native peoples, and the disabled), as outlined in Employment and Immigration Canada's Canadian Jobs Strategy, 1985.

[2] "Expanding the role of business and labour in formulating and implementing labour market strategies" was one of the central themes that emerged in Canadian Labour Market and Productivity Centre, *Report of the CLMPC Task Forces on the Labour Force Development Strategy* (CLMPC, 1990), a document which sets the stage for the Canadian Labour Force Development Board.

Also, in an April 20, 1989 speech to the Empire Club of Toronto, the Hon. Barbara McDougall, Minister of Employment and Immigration called for the "levering of the private sector into playing the dominant role in the training of Canadian workers....Our intent is to stimulate an additional $1.5 billion each year from the private sector for training from now until 1994." See *Canadian speeches* 3, no. 3 (May 1989): 4.

See also Canada. Department of Industry, Science, and Technology, *Adjusting to win: report of the Advisory Council on Adjustment* (Supply and Services, 1989), which stated:

"In the Council's view, Canadians have placed too much responsibility on governments, responsibility that should have been borne in large part by the private sector. In considering the issues raised in this report, the Council wishes to emphasize that it is the private sector that must take on most of the costs of training and retraining its workforce. It has neglected this responsibility in the past and now must make it part of any corporate plan." (p.130)

[3] For specific criticisms of apprenticeship, see, for example:

Canada. Parliament. Standing Committee on Labour, Employment, and Immigration, *A Review of the Canadian Jobs Strategy*, annual report.

British Columbia. Ministry of Advanced Education and Job Training, *Canada/British Columbia study of apprenticeship* (Queen's Printer, 1987).

John Stackhouse, "The Human scrap heap," *ROB Magazine* 7, no. 9 (March 1991): 47-51.

Amy Thornton and Alan Quaile, *Apprenticeship, a way of life* (PATQ, 1989).

CHAPTER

I

APPRENTICESHIP YESTERDAY AND TODAY

APPRENTICESHIP YESTERDAY AND TODAY

The apprenticeship training model which exists today in P.E.I. has its antecedents in the apprenticeship and guild systems of ancient Greece and Rome and medieval Europe. Like those earlier systems, today's apprenticeship model requires that apprentices train for a specific period of time under the supervision of a master craftworker, as prescribed by a formal contract. Now as then, apprentices study the arts of carpentry, cooking, and a variety of other "traditional" trades.

The more recent past has seen the introduction of several trades and features which distinguish modern era apprenticeship from classical and medieval versions. Today's apprenticeship programs, for instance, have added a period of formal in-school training to traditional on-the-job instruction. Increasing trades specialization and technical content also characterize apprenticeship today: electricians, motor vehicle mechanics, hairstylists, and sprinkler system installers, to name but a few, have joined the ranks of the original "core" occupations.

Another relatively recent feature of apprenticeship is third party involvement in policy and program administration. Today in P.E.I., it is the provincial government which registers apprenticeship contracts and administers the overall program, while at the national level, the Interprovincial Standards or "Red Seal" Program encourages standardization of provincial training and certification for 28 apprenticeable trades. During the in-school training period, when apprentices are released from their regular jobs, it is the federal government which finances training and provides income support.

Before 1963, apprenticeship in P.E.I. was largely an informal matter. In 1944, an "Apprenticeship Act" was passed in the provincial legislature. Although this law designated four trades (bricklayer, carpenter, plumber, and construction electrician) as apprenticeable, it was never acted upon. Only after the conclusion of a federal-provincial apprenticeship agreement in 1961 and the passage of the Apprenticeship and Tradesmen's Qualification Act in 1963 did a formal program register trainees.

Today, the province of P.E.I. recognizes 34 apprenticeable occupations, 28 of which are interprovincial or Red Seal trades. The program accepts an average 130 new registrations and certifies approximately 55 tradespeople each year. New registrations and cancellations fluctuate with the economy: both of these program indicators experienced marked drops during and shortly after the recession of 1981-82.

Today, most apprentices enter the construction and automotive trades. The majority of training programs are four years in length but in some trades, due to the sporadic availability of work, the actual duration of training may be substantially longer. Competency, as opposed to time-based training, however, allows hard-working and well-motivated apprentices to complete their training in less than the standard time. Even with these variables, there are usually an average 443 active apprentices "in the system". Over 2900 apprentices have registered with the program since 1964 and the provincial government has issued 3521 certificates of qualification to journeymen since 1963.

The components of apprenticeship training are few and simple. Initially, the apprentice and his or her employer sign a contract in which the apprentice promises to provide faithful service and receive training, and the employer pledges "to accept and train the apprentice in all areas of the trade or occupation so far as his facilities and the availability of work permit". The employer must also release the apprentice once annually for in-school training.

The two parties to the agreement register the contract with the Apprenticeship Branch of the Department of Industry. It is the responsibility of the Branch to ensure that the provisions of the contract are met. The Branch issues each apprentice with a record book in which the employer records the number of hours worked and the skills mastered in the course of on the job training. In addition, once every three months a Training Officer from the Apprenticeship Branch visits the apprentice and the employer in the field and receives a progress report. The Apprenticeship Branch also arranges for periodic in-school instruction, advises participants of course schedules, offers final examinations, and issues and updates certificates of qualification for journeymen.

Besides the apprentice, the employer, and the Department of Industry, apprenticeship training requires the expertise, financial assistance, and cooperation of a host of other players. One should consider, for example, the role played by training agencies such as Holland College, which develop curriculum based on consultations with industry, and deliver instruction for apprenticeable trades. The contribution of the federal government includes the financing of in-school training and the provision of income support, counselling services, and other pre-apprenticeship educational programs from which trainees may benefit.

Apprenticeship solicits the advice and cooperation of various provincial government ministries, as well. The Departments of Education and Labour, for instance, share areas of common program and policy responsibility in adult education, vocational curriculum, employment standards, safety inspection, and so on. The program also has links with various employee organizations (inasmuch as they direct apprentices to unionized job sites within the province), to high school teachers and counsellors (who offer trades instruction and provide career counselling), to the apprenticeship committees of various trades, to advocacy groups, and to the industry organizations and consumers who ultimately benefit from the skills of a reliable, qualified workforce.

Apprenticeship, then, is a complex social contract with broadly shared responsibilities. Given such a multi-level partnership and requirement for cooperation, it is amazing that apprenticeship training works at all, but work it does.

It works, first and foremost, because it is flexible. Its basic model, a combination of theoretical and practical instruction, has been worked out over the centuries and applies well to a wide variety of occupations. Apprenticeship training is customized: it allows the employer to teach and use the apprentice in a specific job context. The apprenticeship model is also general, however. It requires the mastery of an all-round curriculum and guarantees the apprentice employment mobility both during and after training. National attention to uniformity and standards, through the Interprovincial Standards Program, has reinforced mobility and promoted excellence in the 28 red Seal trades.

Apprenticeship also fares well when compared with other systems of training. It offers trainees the opportunity to earn a living while learning a trade, a feature which benefits not only the apprentice, but also the employer, the retailer, and the taxman. Most other training schemes accept and train students without any particular guarantee of a job after graduation, for apprentices, employment, though not guaranteed, is an inherent part of the training program. Trainees have a job right at the start, and usually at the finish of the program, and research demonstrates that a high proportion of graduates are still working in their trades several years after certification[1]. Also, in a country not known for its high corporate investment in human resource development[2], apprenticeship remains a shining example of a training system which already boasts substantial inputs from employers. Several federal-provincial studies of apprenticeship conducted in 1987 found that employers were "major" contributors to apprenticeship training. Their portion of the training bill was estimated to be 64.3% in Alberta, 79.5% in Manitoba, and 59% in Ontario[3].

Apprenticeship is a time-honoured and effective training methodology. It deserves our support. This is not to say, of course, that apprenticeship is perfect or will remain so for the indefinite future. As noted in the Preface to this report, some critics have charged that it is too conservative, saddled with an unflattering blue collar image, and slow to adapt to labour market fluctuations. Given these criticisms, the economic trends also outlined in the Preface, and the acceleration of social and technical change in the latter half of the twentieth century, a review of apprenticeship is well-justified. To establish the health of the program and determine its future shape, the Review Committee solicited information and opinion from each of the major program players. The Review Committee's information sources and research methodology are described in the chapter which follows immediately. The report's findings and recommendations are organized into five subject areas (Recruitment and Selection, In-School Training, On-the-Job Training, Legislation and Administration, and Financial Partnerships) which comprise Chapters Three to Seven of this document.

NOTES: CHAPTER ONE

[1] The P.E.I. Department of Industry, in its First annual journeymen follow-up survey results (Queen's Printer, 1984), showed that 85% of journeymen who qualified between 1975 and 1979 were employed in an occupation related to their trade in 1983. They worked an average of 10.5 months a year. Only 10% of graduates were unemployed.

In Estimation of occupational attrition rates for selected occupations in Nova Scotia (Canmac Economics, 1990), researchers found that, for a variety of trades, the greater the level of investment (in education), the less likely a change in occupation. Apprenticeable trades such as motor vehicle repair, plumbing, and electrical construction work had very low attrition rates.

In a National Apprenticeship Survey conducted by Statistics Canada in 1989/90, researchers found that 96% of program graduates were employed in their apprenticeable trade in the first 12 months after leaving the program. Two to three years after leaving, 88% were still in the same trades. For an overview of the findings of the National Apprenticeship Survey, see Ernest B. Akyeampong, "Apprentices: graduate and drop-out labour market performances," Perspectives on labour and income 3, no. 1 (Spring 1991): 7-15.

[2] The 1987 Statistics Canada Survey of Human Resource Development and Training found that employers spent less than .3% of GDP on formal training, less than half of that spent by American firms. In addition, the study found that only 31% of Canadian firms do any formal training. See Andrew Sharpe, "Training the work force: a challenge facing Canada in the 90's," Perspectives on labour and income 2, no. 4 (Winter 1990): 24).

[3] Alberta. Department of Career Development and Employment, Canada-Alberta study on apprenticeship training (Queen's Printer, 1987): iv.

Manitoba. Department of Education and Training, "Executive summary of Manitoba's Apprenticeship study" (Queen's Printer, 1987): iv.

Ontario. Ministry of Skills Development, Apprenticeship cost study by Abt Associates of Canada (Queen's Printer, 1987): 94.

CHAPTER

2

METHODOLOGY

METHODOLOGY

The Apprenticeship Review Committee began its research with a survey of all Canadian provincial legislation and regulations on the subject of apprenticeship training. The project researcher also reviewed available literature on the Canadian, American, British, and European models of apprenticeship and on training generally (see Appendix A, Bibliography).

To gather local information and opinion, the Committee solicited submissions from interested individuals and organizations by means of a newspaper advertisement and press release. The Committee also sent letters to professional societies and advocacy groups, advising them of the review and inviting their input. Over the course of the twelve weeks allowed for the review, the Committee interviewed or heard submissions from a variety of sources, including the author of a recent government report on vocational education, members of the Construction Association and Council of Labour, the Building Trades Council, apprenticeship authorities in other provinces, selected officials in the Departments of Industry, Labour, Education, and Health and Social Services, the Women's Secretariat, Employment and Immigration Canada (Charlottetown office), Holland College administrative staff, and others. A complete list of submissions received and interviews conducted appears in Appendix B.

The bulk of the Committee's evidence, however, comes from three surveys -- of apprentices, instructors, and employers -- conducted from January to March, 1991. Questionnaires were administered to 45 apprentices attending in-school training (14% of total apprentices) and 10 Holland College apprenticeship trades instructors (100% of instructors). A telephone survey reached 67 employers, or 39% of a total of 174 employers currently registered in apprenticeship files. Fourty-seven percent or 70%, of these employers were chosen at random and 20 (30%) were selected because of their long history or large volume of training experience. A brief overview of survey results appears in Appendix C of this document.

Readers who wish to review complete survey findings may request copies of questionnaires and results (specifying apprentice, employer, or instructor survey) from the Apprenticeship Branch, Department of Industry.

CHAPTER

3

RECRUITMENT AND SELECTION

RECRUITMENT AND SELECTION

The Committee's review began "at the beginning", with an examination of recruitment and selection procedures and the competitive career-market environment in which they operate. In P.E.I., the legal pre-requisites for apprenticeship are few and simple. Candidates for apprenticeship must be 16 years old, must have a minimum Grade 10 education, and must have a job with an employer who is capable of providing well-rounded and competent training. These apparently clear-cut conditions mask a job market which is anything but straightforward.

A. Image of the trades

The apprenticeable, and indeed all, trades have a serious "image problem". Public perception of the trades occupations is generally negative. Trades careers are suggested to young people who are "good with their hands" -- that is, students with a poor academic record -- or when all other occupational avenues have been exhausted. Parents rarely recommend a career in the trades to their children. Instead, they hope and assume that their children will go to community college or university on leaving high school[1]. In fact, in P.E.I., only 17.7% of the population hold university or community college credentials[2].

With the limited resources available to it, the Department of Industry does attempt to advance the image of the apprenticeable trades and to attract good recruits to its training program. For instance, one of the Training Officers in the Apprenticeship Branch already engages in some trades-related outreach activity. He visits school counsellors, attends career days exhibitions, and speaks to groups on request. These duties form only a small part of his job description, however.

The importance of "image" in attracting and retaining good recruits and the sheer volume of potential business , even in P.E.I., suggest the need for a more substantive and planned effort. Our survey respondents consistently identified "image" problems as barriers to high quality recruitment. Twenty percent of apprentices and instructors and 31% of employers singled out negative perceptions of trades occupations as a factor limiting entry or discouraging high quality recruits. Other review participants -- members of the Apprenticeship Advisory Board, personnel from Holland College and the Department of Education, and interested individuals who contacted the review committee -- agreed with this assessment. Various solutions to this problem were offered, such as better high school counselling (28% of employers, 20% of instructors, and 13% of apprentices) and a public relations campaign to improve the image of the trades (20%

of instructors and apprentices, 31% of employers). Holland College identified promotion as "essential to the vitality of the trades" and personnel within the Department of Education and school units attested to the continuing need, for both staff and students, of good resource materials on apprenticeable and other trades occupations.

The combined weight of this evidence suggests a need which is now largely unanswered and the consequences of which will be sorely felt in the future. Given the province's constitutional authority for education and commitment to training, it seems natural that it should assume a local leadership, advocacy, and coordinating role vis a vis promotion. In the current climate of economic restraint, jobs and programs are being lost, not created, but social and economic needs and the testimony of review participants clearly justify creation of a "promotions" function. The resources required by promotion extend beyond the capacities of a single person or position, however. A team approach is necessary, with participation at all levels of government, in the school system, and on the part of all other partners in apprenticeship and trades training.

Promotion: the role of the Department of Industry

Within the Department of Industry, the needs of promotion require a restructuring of positions, a greater degree of coordination and cooperation with other government departments and non-governmental organizations (NGOs), the creation of at least one new position within the Apprenticeship Branch, and the allocation or re-allocation of a modest amount of capital funding to fill the following composite "job description":

1) Liaison with colleagues in other government departments, the school units, Holland College, and professional, industrial and employee organizations to ensure a coordinated approach to the promotion of trades careers.

2) Animation and coordination of community-based campaigns to improve the image of the trades (see below, **Promotion: role of the schools/NGOs**).

3) Direct participation in a campaign to promote the trades. Such a campaign should be aimed at specific target groups, e.g., parents, high school students and other young adults, teachers and guidance counsellors, etc. Activities could include participation in career fairs and professional development days, organization of job-site visits, or coordination of a speakers' bank (of successful tradespeople).

4) Management of a "local needs" publications campaign (to update pamphlets or produce simple multimedia or computerized resource materials for counsellors).

5) Identification of other resources, in all media, for use by guidance professionals.

6) Responsibility for a sub-program to address equity issues (see below, **Equity** recommendations).

Recommendation #1

That the Department of Industry and its partners in apprenticeship training increase promotion to improve the image of the trades.

Promotion: the role of the federal government

Although education is a provincial matter, the federal government has traditionally made contributions to policy in the area of training. The federal government is in a good position to manage a national campaign to promote trades occupations. In cooperation with NGOs such as the Construction Association or national employee organizations, the federal government (for example, Employment and Immigration Canada) could affect a positive change in public knowledge and opinion. We point to the success of promotions such as the "Participaction" campaign or anti-smoking advertisements as proof that governments can encourage attitudinal change.

In support of this recommendation we refer the reader to the evidence preceding Recommendation #1 and by documents such as People and skills in the new global economy, Report on skilled trades and career selection, and selected federal-provincial studies on apprenticeship[3]. All of these documents identified an image problem for the trades, and all recommended a publicity campaign to address this problem. This cross-Canada unanimity demonstrates that the perception of the trades as "second class" occupations extends beyond the borders of P.E.I.

Recommendation #2

That the Department of Industry recommend that the Government of Canada embark on a national campaign to enhance the image of the trades.

Promotion: the role of the schools

Efforts to change negative public perceptions and recruit tradespeople of the highest quality should also involve our public schools. Society's negative attitudes regarding trades occupations are reflected and perpetuated in the school system. One could even say that the social and educational effort expended on the majority of students who will not attend university or college is in inverse proportion to their numbers. Vocational programs -- both actual secondary school offerings and cooperative education or "integration" projects -- rank a poor second after the academic curriculum.

There are some encouraging signs that attitudes and policies are slowly changing. For instance, both P.E.I. School Units II and III will soon embark on new "career exploration" programs which allow students to "sample" various career paths as electives. Also, several secondary schools across the Island include or plan to include on-site trades training as part of their larger vocational program. Greater effort must be made, however, to make the trades accessible and to ensure that high school curricula coordinate with recognized post-secondary career paths.

Also, even with the introduction of exploration programs and in situ course offerings, we must ensure that the trades are not treated as a dumping ground for students who are not academically inclined or who exhibit behavioural problems, for the trades are increasingly knowledge-based and require workers who are as well motivated and productive as any other occupation or industry. "By default" selection can lead to later attitudinal and other interpretive (e.g., reading, writing) problems cited by some employers and instructors in the course of our information gathering: 24 (36%) employers were dissatisfied with apprentices' education, 27 (40%) with their attitude; 7 (70%) instructors cited that functional illiteracy was a problem with apprentices, and 3 (30%) complained of a poor student work ethic. Trades instruction in the schools should be equally accessible to "academic", "vocational", and "general" student populations and should be presented in a positive light.

A campaign to improve knowledge and perception of the trades through the school system must also involve guidance counsellors for, as our survey of apprentices discovered, the largest proportion (36%) of new recruits find out about apprenticeship from high school counsellors. These same counsellors work against daunting odds when it comes to giving adequate attention to the trades. In discussions with counsellors and school board officials, the Committee learned that an estimated less than 50% of counsellors' time is devoted to career education. In high school guidance offices, the personal crises of everyday life dominate the agenda.

When guidance officers do engage in career counselling, it is usually in answer to questions about university entrance entrants. The "trades" resource materials at counsellors' disposition are infrequently Canadian, rarely local, and rather thin on the ground. The "trades" content of professional development days is negligible, and at "career days" expositions, the apprenticeable trades compete for attention with occupations universally judged to be more lucrative, cleaner and more socially acceptable. A 1988 study on the status of vocational education in this province recommended strengthened guidance for students who are not university bound[4]. Twenty-eight percent of the employers who participated in our survey on apprenticeship also suggested that "improved high school counselling " would make a positive contribution to the image and drawing power of the trades.

The present report concurs with these suggestions. While the Department of Industry promotional campaign described above would contribute to the goal of "strengthened guidance", an improved counselling program also needs the fiscal and philosophical support of the Department of Education, regional school units and boards, and the teaching and guidance community as a whole.

Recommendation #3

That the Department of Industry encourage educational authorities to continue to develop programs and curricula in support of trades occupations.

Recommendation #4

That the Department of Industry encourage educational authorities to make trades training electives equally accessible to academic, vocational, and general student populations and to present trades training in a positive light.

Recommendation #5

That the Department of Industry encourage the Department of Education to assume a leadership and coordinating role in developing improved career guidance programs in support of trades occupations.

Promotion: The Role of NGOs

Non-governmental organizations such as sectoral or trades associations and employee organizations also have an important role to play in the promotion of trades occupations. These organizations have a responsibility to educate the public as to what their members do and how they acquire job knowledge. By mounting their own promotional campaigns, by lending their support to the publicity efforts of others (for example, government and school activities described above), they can heighten public awareness, make their voice heard, and make their voice count.

These same organizations should not neglect their own members when they think about promotion: tradespeople should be proud of their chosen profession and they should express this pride through group and individual action, for example, the encouragement of continuing education for their members, regular participation in programs such as apprenticeship training, involvement in educational policy, and the like.

Recommendation #6

That the Department of Industry encourage non-governmental trades organizations to engage in promotional activities to enhance the image of the trades.

B. Withdrawal Rates

This report has stated that the negative image of the trades acts as a powerful deterrent for young people considering apprenticeship and also affects the quality of recruits. But what of the apprentices who enter the trades and fail to complete their training program? Studies in recent years have demonstrated that the withdrawal rates in apprenticeship are high: Employment and Immigration Canada data show that the average discontinuation rate for all apprenticeable occupations was 32.7% and a recent Statistics Canada survey found that drop-outs comprised 40% (or 69.7% in P.E.I.) of all program leavers[5]. Our own research suggests that the drop-out rate for P.E.I. is closer to 56%[6]. The differing methodologies used in these studies make comparison dangerous; suffice it to say there is a "drop-out problem" and that it is serious.

What the aforementioned studies do not establish is why people drop out of the program, and when, and whether one trade or type of apprentice (e.g., very young, or female, or disabled, etc.) is more susceptible than another. In our survey, 88.8% of apprentices stated that (lack of) money was either an important or very important reason why some apprentices failed to complete training. Financial matters will be the focus of subsequent portions of this chapter and will also receive scrutiny under "In-School Training" and "Financial Partnerships". Other apprentices mentioned a lack of competitive advantage as a disincentive to completion, i.e., in some non-compulsory trades, there is no real improvement in status or financial situation for registered apprentices or qualified journeymen. Some employers speculated that drop-outs may have had no real aptitude for the trade in question, or that poor attitude precluded success in that career.

The connection between dropping out and finance seems well established by our research and that of others[7], but there is little hard data to support other hypotheses. When apprenticeship contracts are cancelled, somewhat after the fact of the effective withdrawal, the former apprentice has often left the province or has moved on to another occupation and address. He or she is thus "unavailable for comment". The speculative reasons of employers and apprentices as to why trainees drop out suggest that some changes to screening and recruitment procedures are in order. The concerns of employers and others regarding aptitude, competitive conditions, and the need for a probation period are sufficiently consistent and widespread that it is possible to suggest the direction that such policy changes might take.

But even though the nature of changes to recruitment and selection policy is predictable, we need more and better information about the real reasons for withdrawal. Exit interviews should be an integral part of the cancellation process, and official cancellation should take place at the time of actual withdrawal. Data collected in exit interviews should be incorporated in regular reviews of apprenticeship participation and withdrawal. These steps require a more consistent effort on the part of apprenticeship administration.

Recommendation #7

That the Department of Industry conduct regular reviews of apprenticeship participation and withdrawal, and that the Department conduct exit interviews at the time of termination.

C. Screening Devices

One change which seems necessary, with or without the results of a study on withdrawal rates, concerns the counselling provided by the Department of Industry before the actual contract registration. As noted above, apprentices have identified financial considerations which affect particpation in apprenticeship, and employers have pointed to attitude and aptitude as problems, particularly in the early stages of apprenticeship. The instructors and administrators interviewed in the course of research cited a need to involve employers more in the training process. Current practice for registration of apprenticeship makes no provision for counselling of the employer and the apprentice as to what lies ahead, yet Employment and Immigration Canada, in their oral submission to the Review Committee, and 18% of employers in our survey attested to the advisability of such counselling.

Counselling need not mean the administration of a battery of pyschometric and aptitude tests. Instead, a Training Officer could simply sit down with the apprentice and the employer and review financial and professional expectations, job prospects, implications of in-school training, and so on. With the employer, the Officer could discuss his or her obligations regarding the apprentice and outline opportunities to participate in the various phases of training.

Recommendation #8

That the Department of Industry expand its efforts to counsel candidates and their employers at the time of recruitment.

Employers' concerns regarding lack of aptitude and attitudinal problems, cited above, and their stated dissatisfaction with the technical skills and knowledge of incoming apprentices (61% found apprentices' technical skills and knowledge unsatisfactory) could also be addressed in a pre-apprenticeship course and a mandatory probation period.

Holland College already offers pre-apprenticeship courses in many of the apprenticeable trades, and a substantial number of students enrol in these courses. In the course of this pre-apprenticeship training, they become familiar with many of the tools and techniques of the trade and have the opportunity to see if the occupation really suits them. At the end of this training, if they are successful, students receive credit towards apprenticeship training. Since students are currently responsible for part of their own tuition fees during pre-apprenticeship, they thereby relieve some of the financial training burden otherwise carried by employers and the government during this early phase.

It is possible, and even probable, that the majority of program drop-outs are drawn from the ranks of trainees who have not enrolled in pre-apprenticeship training and that their withdrawal occurs in the early phases of their apprenticeship. In the absence of compulsory testing or mandatory early exposure to the trades, pre-apprenticeship courses serve as a useful introduction and screen. Employers and instructors in our survey also suggested that Holland College make every effort to replicate professional working conditions in the learning environment (including a normal working day and an emphasis on quality, productivity, and motivation). Pre-apprenticeship courses should equip students with the discipline and life skills, as well as the actual trades techniques, required by their occupations.

Recommendation #9

That the Department of Industry encourage candidates for apprenticeship training to enrol in pre-apprenticeship courses offered by Holland College.

It is also a concern of Holland College administration and various employee organizations and employers that pre-apprenticeship students, in the course of accumulating some initial and brief on-the-job experience, should not displace or otherwise disadvantage full-fledged apprentices on the job site. A few simple measures -- such as assigning only one or two pre-apprentices to each site, fully apprising employers of the purpose of the students' presence, and closely monitoring their activities in the field -- could make students' on-the-job placements less disruptive and equally educational.

Recommendation #10

That the Department of Industry encourage Holland College to carefully manage and closely monitor on-the-job placements for pre-apprenticeship students.

We also note that pre-apprenticeship courses are not available for every apprenticeable trade, and recommend that Holland College develop short introductory modules, if not full length courses, for trades presently unavailable.

Recommendation #11

That the Department of Industry encourage Holland College to develop pre-apprenticeship training for all apprenticeable trades.

Finally, while pre-apprenticeship is a useful introduction to apprenticeable trades, it should not be the only screen for new recruits. On-the-job, formal probation periods are common with most types of employment. For apprenticeship training, probation periods should be the final "test" for trainees contemplating a career in the trades. Students who complete pre-apprenticeship should undergo a six month probation; a twelve month probationary period should apply to those without pre-apprenticeship. Only after the successful completion of this six or twelve month period would the apprenticeship contract be finalized.

Recommendation #12

That the Department of Industry recognize probationary periods of six months for students completing, and twelve months for students not completing pre-apprenticeship training.

D. Educational Pre-requisites

The increasingly technical nature of the trades exerts special new pressures on the recruitment environment. Today's electricians must school themselves in the intricacies of computerized controls, and heavy equipment mechanics must be knowledgeable in the area of hydraulics and pneumatics. Manual dexterity, while still important, is clearly not enough for today's tradespeople. Increasingly, we must emphasize the crucial importance of reading, writing, mathematical, scientific, and analytical skills for the trades.

However, as Statistics Canada found in a 1989 study, 16% of Canadians cannot deal with the majority of everyday written material and "a further 22% can carry out only simple reading tasks within familiar contexts and with materials that are clearly laid out"[8]. In our survey, 10% of employers identified functional illiteracy as a problem affecting the performance of apprentices. Employers also suggested that (applied) reading and writing would be useful topics for journeyman upgrading.

Research also suggests that we as a nation need to improve our scientific, technical, and mathematical skills[9]. Because the knowledge requirements of the trades are not stressed, either in society or in schools, this is probably even more true of journeymen and apprentices. In our survey, 28.5% of instructors and 10% of employers cited a need for more math and science abilities on the part of trainees. Women apprentices may need a particular boost in this area, for as studies in the last decade have pointed out, girls are not encouraged to continue with math and science studies beyond the most basic level[10].

Also, a requirement for better math and science skills applies not to just today's jobs, but to future employment opportunities. The Economic Council of Canada has reported that between 1980 and 1985, 76% of Canadian companies introduced technologies such as robotics and computer-assisted design in the workplace; 85% of firms predicted they would be using computer based technology by 1990[11]. The Council has also shown that technologically intensive industries are growing more quickly and creating more jobs than the low and mid-tech sectors[12]. These new jobs will require new skills and a solid educational base: Employment and Immigration Canada estimates that for all jobs created between 1986 and 2000, 64% will require at least 12 years, and 48.8% will demand more than 17 years of education and training[13].

Apprentices in our survey made a strong statement about the need to demand a high educational standard of recruits. Of 45 apprentices surveyed, 19 (42%) thought the current Grade 10 educational pre-requisite was "just right" and a further 19 (42%) thought it was too low (1 apprentice opted for "too high" and 6 had no opinion. Interesting differences emerged when the results of this question were cross-tabulated by trade: 89% of carpenters thought Grade 10 "just right", but more than half of the plumbers, welders, cooks, electricians, and motor vehicle repair apprentices thought the educational pre-requisite should be higher. This suggests that the need for a higher educational requirement applies more to some trades than to others.

If we wish to keep pace with the status quo, we must ensure that incoming apprentices have the necessary skills to allow them to function safely and efficiently in their jobs. If we wish to participate in emerging job opportunities, we must be even more fastidious about the qualifications of recruits. But what should this qualification be? 10, or 22% of apprentices surveyed "voted" for a Grade 12 pre-requisite, and other interviewees (for instance, the P.E.I. Hairdressers' Association) also recommended Grade 12 as a minimum.

It seems clear, however, that it would be very difficult to establish one educational pre-requisite across the board for all apprenticeable trades. Instead, one should examine the competencies required of entrants in each trade and establish equivalencies between these abilities and recognized standards of educational measurement such as high school credits and grade levels. A plumbing apprentice, for instance, might require "Grade 12" math and "Grade 10" English. We recommend that the Department of Industry, in consultation with the Apprenticeship Advisory Board, Trade Advisory Committees, industry, and labour, conduct a thorough, trade-specific review of educational entrance requirements and propose changes if and as appropriate. The resulting set of pre-requisites would then be appended to trade or apprenticeship training regulations.

Recommendation #13

That the Department of Industry conduct a trade-specific review of educational pre-requisites for apprenticeable trades.

Having established what the desired educational entry level shall be, the Department of Industry and other partners in apprenticeship should turn their attention to "how to get there". Raising educational pre-requisites to Grade 11 or Grade 12 will not help that large segment of the population who might be productive apprentices and journeymen were it not for their inability to read, write, and calculate competently, or for their lack of training in science. Our schools must continue to emphasize core programs in math, English, and science. Adult night classes, upgrading as developed by Holland College Summerside, and private sector literacy instruction as offered by the (Laubach) Literacy Volunteers of P.E.I. provide a much-needed educational "bridge" to adults who wish to expand their career options through programs such as apprenticeship.

Universal literacy requires the continuing strong support of all levels of government. In recent years, Employment and Immigration Canada has reduced direct funding of adult upgrading, preferring instead to direct its program dollars to actual occupational training. "Special project" literacy programs funded through the Department of the Secretary of State and the P.E.I. Department of Industry (such as Laubach Literacy or Holland College curriculum development) are indeed valuable but they do not address the continuing need for direct funding of stand alone adult basic education classes. Nor have we seen, in Prince Edward Island, educational programs, such as literacy in the workplace, which might have particular application for apprentices and journeymen.

It is true that education is a provincial responsibility, but the provinces cannot hope independently to meet the demand for adult upgrading as well as core programs in the schools. To allow the maximum number of people to enter the apprenticeable trades, we look to all levels of government (and with government funding, to professional, community service, and voluntary organizations) to finance a strong core curriculum in the schools and to fund and administer programs such as Adult Basic Education, one on one reading tutorials, and other innovative upgrading programs.

Recommendation #14

To allow persons without sufficient educational qualifications to enter apprenticeable trades, that the Department of Industry encourage the provincial and federal governments to put their full support behind adult basic education.

E. Compulsory Participation

None of the above recommendations address the apprentice's lack of competitive advantage in the workplace. While the addition of counselling, a better education, and a move to greater participation in pre-apprenticeship programs might make the apprentice more attractive in the employer's eyes, these policies would do little to increase the apprentice's status or pay cheque. In certain trades in P.E.I. -- the electrical, plumbing, and motor vehicle mechanic -- apprenticeship is compulsory and this regulation has made perceptible, positive differences to workmanship, commitment, and public safety in those trades. In our survey, both employers and apprentices also stated that compulsory apprenticeship has also meant a "level playing field" in the affected industries: financial inputs and inconveniences are similar for all employers, and apprentices and journeymen benefit from a clear definition of occupational roles.

In Alberta, apprenticeship is already mandatory for all apprenticeable trades. Proposed legislation in that province would, with the exception of certain trades where public safety is a primary consideration, allow employers and employees, after review and petition, to decide whether their trade should participate in a mandatory program. Alberta acknowledges the general success of compulsory apprenticeship across the board, however, and notes that this success is largely due to "the quality of training provided, the relevance of training to employer needs, and the educational efforts of field staff"[14]. Any move to compulsory apprenticeship in P.E.I. must also be accompanied by guarantees of high quality training and opportunities for public input and review.

Recommendation #15

That the Department of Industry consider adoption of compulsory apprenticeship in trades where participation is not already mandatory.

F. Demographic Trends

Labour market economists have pointed to an aging population and falling birth rate as factors which may create skilled labour and other occupational shortages in the near future. Here in P.E.I., statistics reflect national trends: 12.7% of the population was over 65 in 1989 (as compared to 9.9% in 1931); in fact, P.E.I. has the second highest per capita population of citizens over 65 in Canada[15]. Our birth rate in P.E.I. has fallen from 27.1 live births per thousand of the population in 1951 to 15.4 live births per thousand in 1987[16]. All of these statistics point to a shrinking labour pool.

It is not clear whether the demand for labour in apprenticeable trades will continue at today's levels. Technology may render the trades less labour intensive and the best skills shortage projections sometimes fall victim to unexpected down or upturns in the economy. Also, certain trades will probably continue to suffer from cyclical or seasonal slumps, resulting in unemployment. It is true, however, that 47% of all certified journeymen in P.E.I. are above the age of 40[17], and that employers have already experienced labour shortages in some trades. In our survey, 52% of employers said that they were dissatisfied with the availabilty of apprentices in the marketplace, and 88% of these attributed their dissatisfaction to shortages.

Because of the large element of risk in forecasting demographic and labour market trends, and because we are uncertain as to the application of these trends in P.E.I., this report recommends further study of the impact of declining birth rates and an aging population on labour needs of apprenticeable trades in this province. Such a study should examine, in particular, impacts on industries where a small proportion of the professional population is certified (for example, carpentry), forecasts of local demand and economic growth, the impact of technology on industry, and case studies of successful and unsuccessful intervention in labour markets.

Recommendation #16

That the Department of Industry commission a study into the effects of demographics on labour markets for apprenticeable trades in P.E.I.

G. Equity of Access

And what of the composition of the present labour pool? In P.E.I., women play an increasingly important role in the labour force. Their participation has risen from 41.4% in 1975 to 57.3% in 1989[18]. Much of that participation is concentrated in service sector jobs which tend to pay lower wages and have less status. Apprenticeable trades offer women -- and other employment and/or economically disadvantaged groups such as the disabled, aboriginal peoples, immigrants, and social assistance recipients, Employment and Immigration Canada's "designated groups" -- meaningful careers and competitive wages. Yet, in 1989, women comprised only 4.8% of registered apprentices, and most of these women (14 of 15) were enrolled in the traditionally "female" trade of cooking[19].

Why don't more women enter apprenticeable trades? The answer, of course, is complex. Women do not enter non-traditional occupations because of a general societal bias against their participation. This means that women are less likely to be interested in the trades (they don't see themselves as machinists, for instance); they are less likely to have access to information portraying and supportive of women in the trades (little such information exists and there are few channels for its distribution); and they are less likely to find a job in the trades since some employers may be less willing to welcome and hire them in an already competitive market. As noted above in this report's discussion of educational pre-requisites, many women are educationally weak in the crucial areas of math, science, and technology since they have not been encouraged to pursue studies in these disciplines. Family and child care commitments (financial, logistical, etc.) also limit their participation. Many women and other designated group members need an extra initial boost from counselling services and "bridging" programs (such as upgrading or job experience placements) if they are to get that critical "foot in the door", but these programs and services are limited for all would-be apprentices.

There is a good case to be made, however, for greater participation of women and other designated group members in apprenticeable trades. For one thing, they represent a great untapped pool of labour resources for the trades. It simply makes good business sense that employers should develop and governments encourage the talent and economic leverage of so large a share of the labour market. With the developing demographic scenario noted above, their inclusion becomes even more important. For both women and the disabled, the counter-argument of insufficient physical strength holds less water than it used to, since technological change has reduced the physical element in many trades. Women's actual record of performance in non-traditional occupations both in World War II and the more recent past supports this fact[20].

The participation of women and other members of designated groups in apprenticeable trades in P.E.I., however, is largely dependent on their own special motivation and energy. In submissions and discussions with the Review Committee, the East Prince Women's Information Centre (which has sponsored projects to introduce women to non-traditional occupations), the P.E.I. Women's Secretariat, and the Employment Enhancement Program of the P.E.I. Department of Health and Social Services (which offers job placement assitance to social assistance recipients) all spoke to the desirability of greater government assistance to designated group members who wish to participate in apprenticeship. Employers and apprentices in our survey were less clear and less knowledgeable on the subject of equity issues. Eighty-four percent of employers had never hired designated group apprentices; in 82% of these cases, this was because there had never been any applicants. Twenty-four percent of employers had "no opinion" on equity incentives, and another 24% said such incentives were not necessary or desirable. Among apprentices, fully 51% of those surveyed had "no opinion" on incentives, and 13% said special assistance was not necessary.

These essentially negative comments, coupled with the bleak statistics on apprenticeship participation and the recommendations of the abovementioned organizations, all support the need for greater government participation in equity-related matters. The Government of Canada has acknowledged the immediacy of this need by offering the province extra funds (over and above its annual contribution to apprenticeship training) for "equity" projects in the next three years. While the contribution of these funds is welcome, true equity demands an ongoing effort and the establishment of short and long term goals. Several other provinces, such as Manitoba and Alberta, have established promotional offices within their apprenticeship administration and have set themselves goals such as "a 10% annual increase in designated group participation" (Manitoba).

Increased government participation in P.E.I. should consist of activities in the area of leadership, education, and direct employment assistance.

Leadership activities include the publication of a strong policy statement in support of equal access for all citizens to participation in all apprenticeable trades. To create more employment opportunities for designated group members, the Department of Industry could promote preferential public sector apprenticeships for these trainees. The Department could also encourage employee and trade organizations or groups of employers to create multi-employer apprenticeships for individual designated group trainees.

"Education" means a campaign to introduce women and others to non-traditional occupations, to encourage employers to hire designated group apprentices, and to provide resource materials and speakers to schools and community organizations in support of their efforts in counselling and "equity" education.

While the way for designated apprenticeships is being prepared by leadership and education, governments can embark on programs of direct employment assistance: job placement services, counselling, encouragement of special "equity" apprenticeships and financial award programs (e.g., scholarships, bursaries, graduation prizes) in the private sector, and continuing provision of educational "bridging" and employment experience opportunities are examples of such programs.

Recommendation #17

That the Department of Industry issue a policy statement on its support of equity of access to non-traditional apprenticeable trades on the part of women and other designated groups.

Recommendation #18

That the Department of Industry and Employment and Immigration Canada jointly fund a program to promote equity objectives in apprenticeship.

Recommendation #19

That the Department of Industry promote a preferential hiring policy for equally qualified designated group members in public sector apprenticeships.

Recommendation #20

That the Department of Industry promotions unit encourage employee organizations, employers, and trades associations to create multi-employer apprenticeships for individual members of designated groups.

Recommendation #21

That the Department of Industry encourage these same individuals and organizations to offer financial assistance to designated group recruits and new graduates on the basis of need or professional excellence.

Recommendation #22

That the Department of Industry and Employment and Immigration Canada continue to expand upgrading, bridging, and counselling programs which allow women and other designated group members to enter apprenticeable trades.

H. Financial Considerations

Financial considerations are potent drawing cards and barriers for all apprentices. A qualified journeyman earns a respectable living, but apprentices receive appreciably lower wages during the course of their training. The suggested pattern is for apprentices to receive respectively 60, 70, 80, and 90% of a journeyman's wage during years one to four of their training. This reduced earning power is in recognition of their initially lower productivity, of course, but it can also act as a disincentive for young people to enter and complete the program, particularly in non-compulsory trades. Even after certification, in some of the less regulated trades, many young journeymen find themselves working alongside uncertified colleagues who earn just as much as they do.

A previous recommendation on compulsory apprenticeship may eliminate or reduce the effect of these financial disincentives. Subsequent suggestions, listed under "Financial Partnerships", may also improve the financial condition of apprentices. A much more difficult problem, however, is diminished or non-existent income support during the apprentices' annual in-school training block. During those five weeks, many apprentices live from hand to mouth while waiting for (often delayed) unemployment insurance benefit cheques. Some apprentices also drop out or defer in-school training because of real and perceived economic hardship during this period. In our survey of apprentices, 88.8% said that (lack of) money was either an important (15.5%) or very important (73.3%) factor in determining why some students drop out of the program. Seventy-five percent of those surveyed cited elimination of UI delays as a positive step towards reducing financial disincentives. Approximately 24.4% also suggested that tax breaks, for example tool deductions, would help.

In the short term, there are several very simple steps that the Department of Industry and Employment and Immigration Canada can take to prevent unemployment insurance foul-ups and delays. Pre-apprenticeship counselling, as recommended above, could provide would-be apprentices with a clear picture of the financial implications of in-school training and of their obligations concerning UI documentation. In their oral presentation to the review Committee, Employment and Immigration Canada officials also suggested that the Department of Industry organize group information sessions for apprentices several weeks prior to Block Release. In these sessions, Department of Industry and EIC personnel could explain the UI application process and payment timetable. EIC officials also suggested that the Department of Industry could schedule Block Release to coincide with Employment and Immigration's two week timetable for submitting expense claims. In Ontario, organizations such as the Canadian Construction Association have suggested that single Canada Employment Centre locations be designated to receive and process UI applications, and that these applications could be screened before their actual submission (to eliminate simple errors and speed delivery of benefits)[21]. Adoption of any of these suggestions would help relieve apprentices' financial worries during in-school training and would also reduce apprenticeship's overall withdrawal rate.

Recommendation #23

That the Department of Industry work with local Employment and Immigration Canada officials within the framework of existing unemployment insurance regulations and procedures to improve the flow of information and income support to apprentices during in-school training.

In the long term, one solution to UI dependency may be to rely on other methods of income support during Block Release. Apprentices are not "unemployed" in the traditional sense while they are in school, so perhaps other Employment and Immigration Canada programs, such as Skill Development, would be more appropriate than unemployment insurance. Under Skill Development, employers continue to issue pay cheques to trainees, but approximately 75% of their costs are reimbursed by Employment and Immigration Canada. Since apprentices all across the country appear to suffer from the same UI-related problems, provincial apprenticeship authorities should jointly investigate schemes such as Skill Development as useful alternatives to unemployment insurance.

Recommendation #24

That the Department of Industry encourage cooperation of interprovincial apprenticeship authorities to investigate alternative income support strategies.

Another, more permanent, strategy would be to solve the problem by avoiding it altogether, that is, by developing an alternative to Block Release. Other models of course delivery, for example day release, are less disruptive and would not require (extensive) income support.

Recommendation #25

To reduce financial hardships and disruptions caused by traditional Block Release training, that the Department of Industry encourage Holland College to experiment with alternative methods of course delivery for apprenticeable trades.

Recommendation #26

That the Department of Industry join other provincial apprenticeship authorities to recommend that the Government of Canada make changes to income tax legislation which would provide for tax credits and/or deductions for apprentices.

I. Apprenticeship and the Changing Economy

This section of the report will concentrate on how changes to the economy affect the trades served by apprenticeship. As noted earlier, economists have predicted that the bulk of jobs created in the coming years will involve technology and will demand increasingly skilled workers. Many of these jobs will be created in the service sector and indeed, it is this sector which has already experienced phenomenal growth both in Canada and Prince Edward Island.

Training strategies must respond not only to an expanding market but also to job losses and adjustments caused by economic downturns and structural change. In P.E.I., communities such as Summerside and Georgetown have already felt the painful dislocations of such changes to the economy, with the closure of CFB Summerside and a decline in the fishing industry respectively.

How will greater reliance on technology, structural changes, and economic adjustment affect apprenticeship and its recruiting procedures? The impact of technology on industry will require a highly skilled workforce and apprenticeship should respond by reviewing both educational entrance requirements and curricula of already apprenticeable trades (as recommended above, in "Educational Pre-requisites" and below, in "In-School Training: Curriculum" and "On-the-Job Training: Quality of Instruction"). Apprenticeship should also consider, however, whether it has a role to play in offering training to the expanding service sector and industries in the throes of adjustment.

Apprenticeship has long been associated with traditional and/or "smokestack" trades such as millwright, mechanic, and welder. If apprenticeship wishes to project an image of relevancy, modernity, and flexibility -- and if industry is to take advantage of its proven benefits -- the Department of Industry must be prepared to extend apprenticeship, or selected "best" features thereof, to new industries and economic sectors. The hospitality industry, for example, may wish to adopt apprenticeship's blend of practical and theoretical training or its "learn and earn" approach. Apprenticeship may prove a suitable training methodology for aircraft mechanics in Summerside, or shipbuilders in Georgetown. On an experimental basis, and in response to industry requests, the Department of Industry should extend apprenticeship to selected new industries -- say, over a three year period, and with a built-in evaluation process. Further policy and procedural recommendations and guidelines for new designations will appear in a subsequent section of this report, "Administration and Legislation". Recommendations on sources and levels of financial support are included under "Financial Partnerships".

Recommendation #27

That the Department of Industry on an experimental basis extend apprenticeship or features of apprenticeship to selected emerging, expanding, or adjusting industries .

Another much-touted trend which potentially affects training is the increasing globalization of industrial production, and parallel requirements for competitiveness and flexibility on the part of Canadian business and workers. Since, for the present, most apprenticeable trades in Prince Edward Island do not contribute to the international trade current account, it is not necessary to immediately assess the effect on apprenticeship training of the Canada-U.S. Free Trade Agreement, European economic union, or a North American trading bloc. We leave the study of international globalization to future reports.

A 1989 report to the Council of Maritime Premiers, however, strongly recommended greater cooperation and coordination on economic issues within the region[22]. The report recommended, among other measures, a reduction of interprovincial trade barriers (such as restricted bidding on government contracts and highway construction projects, and a lack of interprovincial recognition on professional credentials) which currently limit worker mobility. On March 26, 1991, the three Maritime premiers announced a move to greater regional economic integration, initiated with a one year moratorium on new interprovincial trade barriers and the future publication of a white paper on Maritime economic union[23].

Before the turn of the century, then, we can expect a greater movement of people, goods, and services within the region. Apprenticeship programs should respond by ensuring mobility and flexibility on all fronts -- by designing a flexible, "generic" curriculum and promoting high, uniform standards for all provinces. This report makes recommendations in support of flexibility and mobility in subsequent chapters entitled "In-School Training", "On-the-Job Training", and "Administration and Legislation".

NOTES: RECRUITMENT AND SELECTION

[1] John Walsh, *Report on skilled trades and career selection* (Kitchener, Waterloo, and Guelph Training Advisory Council, 1989). In Walsh's study, over 80% of parents and guardians surveyed expected that their children would obtain post-secondary credentials (pp. 14, 23).

[2] Statistics Canada, *Labour force annual averages, 1981-1988*(1988 data). Catalogue no. 71-529.

[3] Ontario. Premier's Council, *People and skills in the new global economy* (Queen's Printer, 1990) 35.

John Walsh, *Report on skilled trades and career selection*, pp. 4, 33-35.

Saskatchewan. Department of Education, *Canada Saskatchewan Apprenticeship Study 1987* (Queen's Printer, 1987) Recommendation #1, n.p.

Coles Associates, Management Consulting Division, *Report of the federal-provincial study of apprenticeship in New Brunswick, executive summary* (The author, 1987) Section 7D, p.xx.

[4] Donald Glendenning and Thomas Hall, *Vocational education on Prince Edward Island, some new directions, vol. 2, recommendations* (The authors, 1988) Recommendation 5, p.14.

[5] EIC data quoted in *Report of the CLMPC Task Forces on the Labour Force Development Strategy*, p.189.

Statistics Canada National Apprenticeship Survey reported in Ernest B. Akyeampong, "Apprentices: graduate and drop-out labour market performances," *Perspectives on labour and income* 3, no.1 (Spring 1991): 9.

[6] P.E.I. Department of Industry. Apprenticeship Advisory Board, *Transition from school to the trades* (Queen's Printer, 1990) 36.

[7] *Report of the CLMPC Task Forces on the Labour Force Development Strategy*, pp.163-164.

Canadian Construction Association, AFL-CIO Building and Construction Trades Department, and the Canadian Automotive Repair and Service Council, "Submission to Michele Jean, Assistant Deputy Minister, Employment and Immigration Canada, regarding improving the service to apprentices on unemployment insurance when at trade school" (December 1990).

[8] "Survey of literacy skills used in daily activities," *Statistics Canada Daily* (May 30, 1990): 3.

[9] "Revitalizing the technology programs of the colleges" and "Enhancing university education," in People and skills in the new global economy, pp. 57-78.

"Technology in the workplace," in Canada. Department of Employment and Immigration, Success in the works: a profile of Canada's emerging workforce (Supply and Services, 1987) 3-5.

[10] See, for example:
Status of Women Canada and Manitoba Women's Directorate, Participation of girls and women in math, science, and technology (Status of Women Canada, 1989).

F. Michael Connelly, Robert K. Crocker, and Heidi Kass, Science education in Canada, vol. 2: achievement and its correlates (OISE, 1989).

Alison Kelly, ed., Science for girls? (Open University Press, 1987).

[11] Economic Council of Canada, Innovation and jobs in Canada (Supply and Services, 1987) 75.

Economic Council of Canada, Making technology work (Supply and Services, 1987) 15.

[12] Innovation and jobs in Canada, pp.19, 77.

[13] Projections prepared by the Labour Market Outlook and Structural Analysis Branch, Employment and Immigration Canada, as cited in Success in the works, p.9.

[14] Alberta. Department of Career Development and Employment, Final report of the Apprenticeship Review Committee (Queen's Printer, 1988) 3.6.

[15] Statistics Canada, Postcensal annual estimate of population by marital status, age, sex, and components of growth for Canada, the provinces, and territories. Catalogue no. 91-210.

[16] Statistics Canada, Health reports. Catalogue no. 82-003.

[17] Apprenticeship Branch, unpublished data.

[18] Statistics Canada, Women in the workforce. Catalogue no. 71-201.

[19] Apprenticeship Branch, unpublished data.

[20] Quebec. Ministere de l'Education, Positive and negative aspects of women's experience in non-traditional occupations: highlights (The author, [1990]).

[21] "Submission to Michele Jean, Assistant Deputy Minister, Employment and Immigration Canada, regarding improving the service to apprentices on unemployment insurance when at trade school."

[22] Charles McMillan, Standing up to the future: the Maritimes in the 1990s (Council of Maritime Premiers, 1989).

[23] Charlottetown Guardian (March 27, 1991): 1.

CHAPTER

4

IN SCHOOL TRAINING

IN SCHOOL TRAINING

One of the features which distinguishes today's apprenticeship system from other types of occupational training is the fact that it combines formal, theoretical instruction with practical, on the job experience. Every jurisdiction has its own style of in-school apprenticeship training. In Britain and continental Europe, for example, the usual pattern is to reserve one day a week for theoretical training (so-called "day release"). Other models concentrate all of the theoretical component at the beginning of the four-year apprenticeship period, an approach which is also used by occupations such as law and medicine.

Most Canadian provinces have adopted the "block release" system, whereby classes of students attend formal in-school training for 5-6 weeks for each year of their multi-year program. When the needs of the workplace make a five week "clean break" difficult or impossible, variations on the block release theme have evolved: in northern Alberta, for example, Syncrude trainees attend on-site theory classes every fifth week, a plan which accomodates the company's staffing plans and minimizes the disruptions caused by time off and travel to classrooms in southern parts of the province.

A. Length of Program

The in-school training model in force in P.E.I. displays characteristics of both traditional and modern teaching and course delivery methods. Under the present regime, the "typical" trainee will attend a five week session at a Holland College campus once a year for each year of his or her program. This five week block replaces a former six week training period; the reduction is due to a cap in Government of Canada funding.

In a busy workplace, employers rarely have the time and may not have the background knowledge to explain the theory which lies behind technique. The classroom setting, devoted as it is to learning, is more conducive to concentrated theoretical instruction. Qualified instructors are knowledgeable both in the theory of their trades and in teaching techniques. The in-school period, then, is crucial to the development of a good theoretical base in today's journeymen.

Also, as noted elsewhere in this report, the trades are increasingly knowledge-based. It is probably true that this statement applies more to some trades, for instance, the electro-mechanical occupations, than to others, but the acquisition of theory is important to all vocational study. By reducing the in-school training period from six to five weeks across the board, administrators are saying that one can compress the required workload into a shorter time period and still do an effective job. In many trades, this is not an area in which corners can be cut.

In our survey, when asked about ways to improve the in-school portion of apprenticeship training, 6% of employers stated that classroom time should revert to the six week model; 3% thought the program could be made shorter, however. Of the instructors surveyed, 50% thought that the time allowed for in-school training was too short and 50% opted for "just right". It seems apparent, then, that instead of cutting back the length of the in-school period across the board, administrators should review the length of Block Release training for each trade and should make adjustments accordingly.

Recommendation #28

That the Department of Industry review the length of Block Release training for each apprenticeable trade.

B. **Financial Considerations**

Once in school, contact with the employer is virtually severed. During Block Release, tuition costs are borne by the federal government and trainees depend on unemployment insurance benefits or other subsidized income support instead of a regular pay cheque. Trainees who must travel to attend classroom sessions also receive a small travel allowance from Employment and Immigration Canada. The Department of Industry makes a one hundred dollar contribution to apprentices for travel to out-of-province locations.

There are problems associated with many of these areas of government involvement. We have already alluded to difficulties associated with unemployment insurance benefit delivery and will re-cap briefly here: the current unemployment insurance infrastructure is designed to relieve long(er) term unemployment and it adapts with difficulty to the situation of apprentices periodically and temporarily attending in-school classes. With its requirement for substantial initial documentation (for example, the Record of Employment), its mandatory two-week waiting period, and its biweekly timetable for submitting claims and issuing benefits, the unemployment insurance system can rarely issue cheques before Block Release training is over. Faced with the prospect of "doing without" for the length of the in-school program, many apprentices defer or avoid this training, thus extending the life of their apprenticeship or denying themselves certification altogether. When interviewed, Employment and Immigration Canada personnel also expressed frustration with the current system and noted that it led to a high percentage of "no shows", i.e., unfilled training seats.

The financial recommendations detailed under "Recruitment and Selection" and "Financial Partnerships" will serve to alleviate a situation which is untenable for all concerned, but they will do so by radically changing the present in-school financial support system. Implementation of these same recommendations could potentially create or expose new financial gaps. In anticipation of these changes, in recognition of present financial need, and in support of a more integrated approach to all post-secondary training, whether it be vocational or academic in nature, this report proposes granting apprentices access to a variety of financial supports.

Establishment of a scholarship, prize, and bursary program would relieve financial need and would also make a positive contribution to image. Monetary awards granted on the basis of need and achievement would put apprenticeship on a par with other types of training and would also foster a healthy competitiveness in trainees. Employers' stated concerns about "poor attitude", the holiday-like in-school atmosphere, and lack of productivity would be addressed simultaneously. Academic scholarships and other awards could originate with government, corporations, individuals, and labour, trade, or community service groups. Publicity for the "scholarship" concept would be the responsibility of the Apprenticeship Branch's promotional portfolio.

Recommendation #29

That the Department of Industry encourage government, labour, management, trade and community service organizations, and individuals to offer scholarships, bursaries, or other financial support to apprentices.

In the matter of travel allowances, apprentices spoke plainly about the inadequacies of the current arrangements. In our survey, they noted that Holland College's policy to consolidate trades instruction in single campus locations meant greater distances to travel, particularly for residents of Prince County. In 7 (15.5%) cases, they mentioned the inadequacy of the current federal government travel allowances. Our survey did not include apprentices who must leave the province to attend in-school instruction, but it is clear that provincial assistance in the amount of $100 does little to cover their actual costs. If apprenticeship expands to new and specialized trades with no training facilities in P.E.I., the inadequacy of this allowance will become even more apparent. Although the federal funding for travel allowances increased by 25% in February 1991, this additional funding, while welcome, was long overdue. In the interest of supporting present and future in-school training, both federal and provincial travel allowances must be increased and regularly reviewed.

Recommendation #30

That the Department of Industry increase out-of-province and Employment and Immigration Canada further increase in- and out-of-province travel allowances to apprentices to reflect actual costs.

C. Model of Course Delivery

Under the current model of in-school course delivery, students are batched and grouped according to trade. Once in the classroom, they may, in most cases, proceed through the set curriculum at their own pace. This modular, as opposed to time-based, course model holds great advantages for apprentices since it allows them to master concepts and complete course objectives in less time than the four years prescribed, if they are well-motivated and hard-working. For teachers, of course, the modular plan presents special challenges, since a single classroom may contain apprentices working on various skills and at widely different levels/rates, much like the one-room school of old.

A similar picture of conflicting demands emerges when one examines other aspects of course delivery. Holland College's attempt to reduce costs by consolidating instruction venues for certain trades (because of duplication of equipment and staff time) has already met with some opposition. In our survey of employers, tradespeople in western Prince County, and welders in particular, clearly feel that concentration of course offerings in Charlottetown discriminates against them. For some trades -- Boilermaker and Heavy Equipment Mechanic, for example -- training is not available in P.E.I. and apprentices must travel to other locations to attend their annual sessions. Nevertheless, given the escalating costs of equipment, personnel, and curriculum development, and given the ever increasing pressure to consolidate resources geographically, one can only assume this trend to consolidation will continue.

In the region, one may expect that the provinces will find it increasingly necessary and attractive to rationalize institutional resources for certain trades with low subscription rates and/or extraordinarily high administrative expenses. The fact that in-school training is brief and sporadic, and that travel is a temporary inconvenience, argues against local availability. Recommended increases to travel allowances, above, may serve to offset the financial burden occasioned by consolidation.

Recommendation #31

That Holland College continue with its policy of consolidating apprenticeable trades instruction in single locations.

Recommendation #32

That the Department of Industry cooperate with provincial apprenticeship authorities in the Atlantic region to rationalize institutional resources and course offerings for apprenticeable trades.

The Review Committee also identified flaws with the "batch" mode of course delivery. These problems are potentially more serious because they cut across all trades and affect all apprentices. Briefly, the problem may be characterized as follows: the batch or Block Release method is inflexible and presents financial, psychological, and logistical impediments to apprentices and their employers.

The reasons for batching are valid. Administratively, it is neater, more efficient, and perhaps even less costly than an individualized approach. Instructors, for instance, can be hired for a specific time period and can teach the entire group. From a student's point of view, batching encourages periods of concentrated study. Unfortunately, the very isolation of that study and its annual delivery timetable can also mean that both apprentices and employers come to view in-school training as either a holiday from work or as overly academic and removed from real life (19% of employers found in-school training"too theoretical", 9% complained of its "holiday" atmosphere). Employers have little actual involvement with what is learned or the sequence in which it is taught. Back at the job site, the employer must rearrange schedules and redeploy work teams to compensate for absent apprentices. In small shops, an indispensable employee may be actively discouraged from attending. And given the choice between engaging in remunerative work -- especially in trades such as carpentry where such work is scarce or cyclical in nature -- and drawing unemployment insurance benefits while attending in-school training, many apprentices will reject the in-school option.

It should be noted that an attempt has been made to introduce some flexibility into a basically inflexible system. The Apprenticeship Branch and Holland College do try to schedule course at times of year most acceptable to employers and apprentices. Adoption of a modular lesson plan is also an encouraging and time-saving development. Competency-based training followed to its logical conclusions would mean a further erosion of the time-derived structure and the batch mode. Under a completely modular plan, curriculum would still be defined in terms of competencies to master, but students would attend in-school training when they were able. Other models of course delivery -- day release, night or correspondence courses, computer or multi-media instruction, on-site delivery -- would offer increased flexibility while still maintaining a high standard of excellence.

A shift to innovative, less disruptive models of course delivery would reduce or eliminate many of the financial, pyschological, and logistical problems associated with the in-school training. Different models might work better for different trades, of course. Day release might suit apprentice cooks, for instance, because restaurants have a predictable slowdown in business on Mondays. Distance education may be impracticable in trades where hands-on experience is imperative, but computer-assisted instruction would work well where schematics and theory make up a large portion of the in-school curriculum. The apprenticeship experience of other jurisdictions such as Britain and West Germany suggests that non-traditional methods of course delivery can be effective[1]. A large unknown, however, is the comparative cost of developing and delivering such courses. For this reason, it is recommended that Holland College or other training agencies pilot innovative course delivery models for selected trades, and that a cost-benefit analysis be built into the evaluation process.

Recommendation #33

That the Department of Industry work with Holland College and other training agencies to develop innovative models of course delivery to apprentices.

D. Curriculum

When assessing the contribution made by the in-school portion of an apprentice's training to the overall package, one must, of course, consider what is taught.

"Curriculum" probably receives more critical attention than any other single aspect of the apprenticeship program. The process for developing curriculum is as follows: the training institution (usually Holland College) appoints established tradespeople to an Advisory Committee which identifies subject areas and techniques which must be mastered by trainees. Interprovincial considerations may influence the Committee's choice of subject matter, but local conditions also play a part.

Once identified, curriculum components are organized into a logical learning sequence and translated into a (DACUM) chart of actual measureable tasks and skills. The instructor is responsible for identifying and ordering or creating resource materials (textbooks, videos, handouts, etc.) in support of the curriculum. Holland College purchases or solicits donations of required equipment. The present curriculum development process also has a built-in opportunity for review: Trade Advisory Committees are scheduled to meet once annually to evaluate and, if necessary, revise the teaching program.

The system can break down in one or more areas, however. Committee membership can be a problem, for instance. Members are usually "old hands", not recent graduates, and while they undoubtedly bring the benefit of many years of experience to their task, there is a danger that older craftspeople may not have kept up with new developments in their trade or may prefer a traditional approach to learning. In our survey, 9% of employers stated that they felt in-school curriculum was sorely out of date, and concern about the technological currency of trade schools is a common theme of many other apprenticeship critiques[2]. Trade Advisory Committees may also have a higher representation from large firms than small, or vice versa.

Holland College Trade Advisory Committees also draw on the talents of a relatively small group of dedicated individuals and they must "compete" for members with the Trade Advisory Committees established by the Apprenticeship Branch of the Department of Industry (the latter charged with examination review and other trade-specific matters). Furthermore, it has sometimes been suggested that the Holland College Trade Advisory Committees do not meet as regularly as advertised. Without constant vigilance, in these times of rapid change and technological revolution, a once-ideal curriculum can quickly find itself out of date.

The following recommendations on curriculum and Trade Advisory Committees reiterate the importance of technological currency to course development and highlight the importance of balanced representation from the trades. Holland College and the Apprenticeship Advisory Board must seek the greater involvement of young tradespeople in setting the future agenda for the trades while still recognizing the continuing contribution and dedication of older and more experienced voices. The Interprovincial Trades committees use just such a combination of new graduates and older tradespeople when reviewing examinations, and it is this same formula which we recommend for reviewing in-school curriculum. It is also important to ensure varied and balanced representation from large and small firms, labour and management.

Single Trade Advisory Committees, with members jointly appointed by Holland College and the Department of Industry, would make more efficent use of a rather scarce commodity -- knowledgeable and dedicated tradespeople with time to spare. Large areas of overlap already exist in the respective trade committee mandates of Holland College and the Department of Industry. Where divergences would indicate an expanded joint agenda, an increased exchange of information would compensate for the slightly broader mandate. Shared Trade Advisory Committees may also wish to add new subject areas to their list of responsibilities, for example the articulation of trade curricula between secondary and post-secondary institutions and programs.

Also, as noted above, it has been observed that Holland College Trade Advisory Committees do not always adhere to a once a year timetable for meetings. This is certainly the case for Trade Advisory Committees appointed by the Department of Industry. This failure to call frequent or regular meetings ignores one of the real strengths of apprenticeship: its close links with industry. Journeymen-employers are the engine which drives the program. Their energy keeps apprenticeship fresh, responsive, and relevant. It is imperative, therefore, that apprenticeship adopt an administrative structure that keeps communication channels with industry open. An annual meeting of Trade Advisory Committees should be a minimal requirement for all apprenticeable trades.

Recommendation #34

That Trade Advisory Committees composition reflect a balance of recent graduates and experienced tradespeople, large and small firms, and labour and management interests.

Recommendation #35

That Holland College and the Department of Industry jointly appoint members to single, shared Trade Advisory Committees.

Recommendation #36

That Trade Advisory Committees meet at least once annually.

Review Committee investigations also addressed the issue of how instructors contribute to curriculum. As noted above, it is the instructors who are responsible for identifying resource materials in support of DACUM chart skills. These materials come in a variety of formats and media -- textbooks, handouts, videos -- and their identification requires real skill and substantial time.

In our discussions with instructors, however, several mentioned that lack of adequate course preparation time is a real handicap. This is particularly true for instructors who are hired directly from the trade on contract to teach Block Release students. Their contract is for the length of that Block, and that Block alone. They have virtually no time before or after classroom sessions to work on resource material identification and lesson plans.

The following recommendation suggests a greater consolidation of curriculum development effort as well as a greater recognition of the need for judicious course preparation on the part of instructors. Holland College and the Department of Industry should review the present policy of hiring contract instructors solely for the length of Block Release. Holland College might also make increased use of the services of central resource personnel such as librarians, acquisition professionals, or subject specialists to identify, acquire, and create materials in support of the apprenticeship curriculum.

Recommendation #37

That Holland College and the Department of Industry ensure that instructors hired for Block Release have adequate preparation time; and that appropriate resource materials are available for such instructors.

E. Equipment

Problems of technological currency also plague equipment stocks. The equipment required by some trades can be quite substantial. Because of advancing technology, it too requires constant updating. All of this adds up to a very expensive proposition for a small community college training a modest number of students in a community without a broad industrial base or large corporate donors. Holland College's budget simply cannot keep pace with the demand for modern motor vehicles, fire alarm systems, electronic control panels, etc., required for high quality trades training. Instructors and students undoubtedly feel the lack of state of the art equipment, as instructors must resort to teaching the theory of a given machine instead of being able to offer hands-on practice. When, as one Holland College administrator noted, it is a question of not being able to provide up to date safety equipment, apprentices carry back bad work habits to their shops with them.

The cost of purchasing new equipment should be factored into Holland College's annual budget and, generally speaking, be financed through its regular revenues. Including Trade Advisory Committees in the budget development process may bring an added measure of foresight to the exercise and may obviate a later need to catch up to the current industry and/or institutional norm. The present substandard conditions in some trades, as well as the occasional need for an extraordinary purchase, however, prescribe an immediate "shot in the arm" to revive equipment stocks.

A 1988 study of vocational education in P.E.I. recommended that the provincial government subsidize equipment purchases for Holland College[3] and the present report concurs with that recommendation. The Department of Industry should be prepared to assist with a one-time capital grant to upgrade the present equipment supply, but Holland College should also explore other, innovative means of financing on-going equipment expenses. The Holland College Foundation already solicits the assistance of corporations and individuals as part of a fund-raising strategy, and trades manufacturers and suppliers should be approached in this context. Shrewd business people realize that exposure to the successor generation -- through donations of equipment and money -- can only bring them new or wider recognition and later profits.

The following recommendations take into account the need for on-going attention, contingency plans, and an innovative approach to the acquisition of safety and demonstrator equipment for trades education.

Recommendation #38

That, on an annual basis, Holland College, in consultation with Trade Advisory Committees and instructors, review the equipment required to support curriculum objectives in apprenticeable trades at Holland College campuses.

Recommendation #39

That Holland College, in consultation with Trade Advisory Committees and instructors, compile a list of equipment required now to bring apprenticeship training courses up to industry standards; and that the Department of Industry fund such extraordinary expenses through a one-time capital grant.

Recommendation #40

That Holland College explore innovative means of fulfilling on-going equipment requirements.

F. Quality of Instruction

And what of the role played by instructors? Have we chosen good communicators and worthy role models to teach the tradespeople of tomorrow?

Holland College currently employs two types of instructors to teach apprentices. On the one hand, as noted above, there are active tradespeople hired on short term contracts solely to teach Block Release students; the skills of these tradespeople have been honed by years of experience in the trades, but they do not necessarily have a background in teaching. In addition, Holland College employs regular, full term staff members who may or may not have recent trades experience but whose academic credentials are usually strong.

Several instructors in our survey noted that academic qualifications carried greater weight than technical experience in determining upgrades of one's teaching licence. Although Holland College generally encourages continuing education for its staff members, and although most instructors surveyed stated that they had engaged in some sort of upgrading activity in the last five years, there is little incentive for full time personnel to return to the field for regular industry "refreshers". The contract instructor drawn from the trades has no guarantee of future or on-going employment, no access to the College's fund for continuing education, and therefore little encouragement to pursue formal studies in teaching methods.

The following recommendations attempt to describe a more equitable and definite set of standards and goals for the continuing education of both full time and contract instructors. Teaching licences should endorse technical experience on a par with academic credentials, and the teaching qualifications of part-time personnel should be reviewed. If inadequacies are exposed as a result of that review, Holland College should encourage contract instructors to improve their teaching skills by subsidizing their study or granting them improved access to educational opportunities (such as training modules or Holland College's own classes in teaching methods).

Recommendation #41

That the Department of Industry and Holland College approach the Department of Education to request a review of the system of teacher licensing for trade and technical instructors.

Recommendation #42

That Holland College encourage full time trades instructors to return to the field for short term placements at least once every five years.

Recommendation #43

That Holland College encourage short term instructors in apprenticeable trades to obtain teacher's certification.

NOTES: IN-SCHOOL TRAINING

[1] See, for instance, Canada. Employment and Immigration, "Reflections on a fact-finding trip to the United Kingdom, West Germany, and Holland" (The author, 1990).

[2] See, for instance:

John Stackhouse, "The Human scrap heap", p.50: "...apprenticeship courses are...a mess. They're controlled by bureaucrats and as much as fifteen years out of date."

Canada Saskatchewan Apprenticeship Study 1987, section 3, "Updating of the Apprenticeship Program", n.p.

[3] Vocational education on Prince Edward Island, some new directions, vol. 2, recommendations, Recommendation 29, p.51.

CHAPTER

5

ON THE JOB TRAINING

ON THE JOB TRAINING

An apprentice spends most of his or her time not in the classroom, but on the job. This is "real life". The apprentice is wiring real houses, and ventilating real factories. The employer has a job to do and no time to waste. The journeyman to whom the apprentice is attached may or may not be a skilled trainer who is competent and on the "cutting edge" of industry. The pressures of the job often demand a specialized approach to working, and hence training. Employment can be intermittent, and training interrupted. Training Officers from the Apprenticeship Branch cannot always be there to oversee on the job training. In fact, they visit worksites only once every 3 months, meet with the apprentice and the employer, and are gone. The on-the-job portion of apprenticeship training, then, faces enormous challenges when it comes to quality control.

Traditionally, apprenticeship programs have given employers a relatively "free hand" when it comes to meeting formal training standards. From an employer's point of view, the preconditions of apprenticeship are loosely defined. Apprenticeship contracts only stipulate that all employers must "be able to train an apprentice" and electrical inspection legislation simply says the apprentice must be "adequately" supervised. In neither case is "ability" or "adequacy" defined.

There are good reasons, of course, for keeping the on-the-job terms of training general. One simply has to allow the employer a reasonable degree of maneuverability; otherwise, the entire program loses it attractiveness to the employer, and the training system breaks down. Why do employers continue to train apprentices? Altruistic motives and recognition of the long term benefits of training do play a part. For instance, 3% of those surveyed said they preferred to hire apprentices because of a "responsibility to train". It is more often the case, however, that employers hire apprentices because of economy and the ability to "customize" their job skills. Fully 35% of employers surveyed acknowledged that they preferred apprentices because they were able to pay apprentices lower wages while they were in training. An equal number of employers stated that they welcomed the opportunity to mould the apprentice to their own tastes and job demands. If quality and other administrative controls begin to impinge too much on the employer's ability to deploy a customized workforce at a lower wage, it is clear that more and more employers would decline to participate in apprenticeship programs.

That is not, of course, to say that there is no bottom line, no minimum standard, no training ideal. The examinations offered by the Interprovincial Red Seal program represent one such standard. It is the responsibility of the apprenticeship system to develop a program which meets such standards while ensuring that the interests of all parties - employers, apprentices, and consumers - are protected.

The Department of Industry must design a program which takes advantage of an employer's experience and acknowledges his or her contribution of time and money. The program must give apprentices access to a variety of increasingly complex training situations, under the supervision of qualified personnel, and with due attention to working conditions. Finally, apprenticeship must be able to guarantee its product. Consumers need to know that tradespeople are competent, and society requires that we have a supply of such workers in future years.

Earlier in this report, under the heading of "Recruitment and Selection", we discussed issues of supply and demand. Financial considerations have been examined as part of both "Recruitment and Selection" and "In-school Training", and will receive further scrutiny under the "Financial Partnerships" section of this report. Thus, in an evaluation of the contribution made by on-the-job training to the apprenticeship program, we are left with issues which fall roughly into the category of "quality control". For purposes of comparison with training institutions, and in recognition of the fact that on the job experience is indeed training, this chapter of the report identifies pressure points under "curriculum", "quality of instruction", and "training model". The controversial issue of "ratios" will be examined as a sub-title under the broader heading "on-the-job training: quality of instruction".

A. Curriculum

The apprenticeship program tries to ensure an all round and consistent education by supplying each trainee with a log book. In this log book the employer records the number of hours worked. He or she is also required to evaluate the apprentice's performance of a pre-defined set of job skills. Skills and hours are divided into blocks of roughly one year each. At the end of each block, employers are expected to graduate apprentices to the next level, and to recognize their growing competency with a corresponding increase in pay. Training Officers from the Apprenticeship Branch monitor the apprentice's progress and discuss their profiles with employers on a quarterly basis.

In practice, of course, things are never that simple. As noted earlier, in many trades there is increasing pressure to specialize. This leads to a situation where some apprentices spend weeks or months installing drywall or filling seams. Huge areas of the "curriculum" are untouched and remain so, thus preventing trainees from completing course objectives or progessing to the next level of their apprenticeship. It has also been reported that some employers will either hold the apprentice back or fill out his/her log book as complete when in fact, the curriculum has not been addressed and skills have not been mastered.

Even when apprentices have legitimately accomplished a set of tasks, there is a wide range of instruction styles and measurement from employer to employer and job to job. In our survey of instructors, 80% of the sample indentified "inconsistency" or "generally poor experience" as problem features of on-the-job training. Training Officers, during their quarterly visits, have little real ability to change this situation; they must rely on the employer's assessment of the apprentice's progress, and the apprentice is unlikely to be candid about less-than-ideal experience when his or her job is at stake. It is questionable, given this situation, whether more policing would solve problems of inconsistency and carelessness or would simply aggravate matters. Instead, apprenticeship should address the quality control question by prescribing a greater degree of detail and by making what we think are realistic concessions to the present and future nature of the trades.

The following recommendation assumes that the employer's ability to deploy a flexible work team would not be seriously handicapped by prescribing a somewhat greater degree of detail in apprentices' log books or in other literature supplied to their employers by the Apprenticeship Branch. Such detail could apply not only to the description of the task but also to the way in which it is measured. In support of this recommendation we point to instructors' concerns about on-the-job training inconsistencies, also to the example of an apprenticeship pilot project recently carried out between Alberta and the Gulf State of Dubai. Log books in the Dubai experiment specified a great deal of detail and, according to Don Bell, Director of Apprenticeship in Alberta, this greater specificity caused no hardships on the job. Mr. Bell hopes to apply this model in Alberta in the near future, with an eye to greater quality control in on-the-job training.

Recommendation #44

That the Department of Industry provide the on-the-job trainer with a more detailed description of the skills to be acquired by apprentices on the job site.

Recommendation #45, below, sets forth policy directions for dealing with the issue of specialization in apprenticeable trades as it applies to training.

A general approach to trades training is, in principle, a good thing -- especially here in P.E.I. where tradespeople must be versatile and adaptable. Generic trades training also gives apprentices greater interprovincial mobility, before and after certification. There comes a point, however, when economic and other practical pressures are so great that industry, and apprenticeship in its wake, must bow to the demands of specialization. It is very difficult to establish just where that point occurs, although we will attempt to establish guidelines for new designations in a subsequent section in this report, under "Administration and Legislation".

As long as one can maintain a wholly general approach, specialty certificates of achievement should be issued after general certification (as was suggested by 19% of employers surveyed). If the nature of industry is such that the demand for specialized tradespeople begins to outstrip the need for generalists, then the Apprenticeship Branch should take steps to recognize that specialty -- by adding electives to the core in-school curriculum, for instance, or, as a final step, by designating the specialty as an apprenticeable trade in its own right. This recommendation also assumes that, following the present pattern, the Apprenticeship Branch would be responsible for administration of examinations and certification of said specialities, and that Holland College or a similiar institution would offer in-school training at both the pre- and post-certification levels.

Recommendation #45

That, for the present, the Department of Industry uphold the principle of general apprenticeship training; and that the Department continue to monitor the trend to specialization in designated trades.

B. Quality of Instruction

B. (i) Teaching "qualifications"

We have already noted that an apprentice spends most of his or her training time on the job. In its recommendations on the quality of in-school instruction, this report recognized the importance of teaching quality and technological currency on the part of instructors. Our investigations will now apply an equal measure of scrutiny to the teaching abilities of the on-the-job trainer -- the journeyman.

Some journeymen are "born teachers" -- others are not. Some journeymen make a conscientious effort to keep abreast of new developments in their trade -- others, for a variety of reasons, do not. Most apprentices who stick with the program will pass their final qualifying exams. They can credit much of their success not only to their own hard work, but also to the dedication of their teachers. And yet, given the amount of time spent learning on the job, and the fact that journeymen are examples as well as teachers for their apprentices, it behooves us to take a closer look at their "qualifications".

Also, in the course of conducting surveys and interviews, our research exposed a persistent but ill-defined sentiment that employers should somehow be held more accountable for training. Admittedly, it was not the employers themselves who expressed this sentiment, but rather administrators, instructors, labour associations, and other groups and individuals who submitted briefs. There is a general feeling that the apprenticeship program should try to quantify the conditions which contribute to good on-the-job training, and that we should reward those who provide an excellent example and disqualify those who cannot make the grade.

Legislation and regulations currently in force do not attempt to establish minimum job site criteria, and since there are not even any formal guidelines on the subject of on-the-job training quality, there is always a danger of imposing one's own subjective opinion on a given training situation. Quality is notoriously difficult to measure, but the following recommendations seek to reward obvious excellence and provide safeguards for quality and against repeated abuse of the program.

Under Recommendation #46, below, the Department of Industry could consult with other provinces and develop a set of quality-related criteria with national and regional application. Such criteria could include qualifications of personnel, type (breadth, complexity, etc.) of work engaged in, safety habits, training record, and so on.

Recommendation #46

That the Department of Industry establish a set of quantifiable on-the-job training criteria, and that prospective employers of apprentices be measured against those criteria at the time of registration.

When setting a standard, one should also consider the case of an employer who cannot match the established criteria. If an employer seems unable, at the outset, to provide a broad training experience, the Apprenticeship Branch might counsel an apprentice to consider enhancing his or her experience by working for another employer for part of the apprenticeship. Also, while we would consider it preferred practice to reject an obviously substandard employer at the outset, the Apprenticeship Branch should be prepared to cancel an apprenticeship contract mid-way, if an employer cannot meet established criteria and no compensating measures can be enacted. Therefore, while establishing criteria for participation, the Branch should also develop criteria for disqualification and a process for appeal.

In Departmental criteria for on-the-job training, qualifications of personnel should receive particular attention. Only the electrical, plumbing, and motor vehicle repair trades are compulsory in P.E.I.: that is, persons wishing to practice these trade must be licensed (by virtue of having written qualifying exams). In all other cases, tradespeople may or may not have recognized professional qualifications. They may or may not have benefited from formal education such as that provided by apprenticeship. This is not to suggest, of course, that they are incompetent or have no right to practice or teach. However, as uniform education and certification become more the norm, and particularly if apprenticeship and certification become compulsory at some time in the future, we may question whether unlicensed tradespeople still make the best teachers. If certification and formal training are widespread, then only fully qualified journeymen should supervise apprentices. In Recommendation #47, the Review Committee anticipates future needs.

Recommendation #47

That the Department of Industry consider issuing contracts of apprenticeship only when certified journeymen will supervise the training of apprentices on the job.

Unlike their "institutional" colleagues, journeymen trainers are unlikely to have any formal teaching qualifications. Although there is no evidence to suggest that this is a serious, across the board deficit which negatively affects training outcome, the Apprenticeship Branch should emphasize employers' responsibility to provide adequate training when the original contract is signed. For employers who wish to brush up their teaching and supervisory skills, we feel that the Apprenticeship Branch could take the simple step of producing a video tape or other resource materials on the subject. These "train the trainer" materials could then be circulated to interested employers or supervisors. In-school trades curricula could also include a module on training to be used in the apprentice's final year or to be made available to interested journeymen on demand or as part of a continuing education program. These measures recognize the importance of teaching technique and acknowledge that teaching is a learned, quantifiable skill as well as an innate ability.

Recommendation #48

That the Department of Industry produce and circulate resource materials on teaching skills to employers and supervisors of apprentices.

Recommendation #49

That in-school trades curricula include a "train the trainer" module on instructional techniques.

B. (ii) Continuing Education

Technological and general professional currency are issues for all tradespeople, licensed or not. Although it has not been formally established that tradespeople in PEI do not engage in continuing education after certification, one can generally assume this to be the case. Continuing education opportunities are scarce in this province and unions are not really active in this field. There are, of course, some notable exceptions. Automobile manufacturers, for instance, are careful to keep dealers apprised of new developments and product lines.

Regarding national continuing education practices in industry, it is an established fact that large firms tend to invest more in training for their employees[1]. It is also known that the majority of firms in PEI -- and of firms in our survey -- are small[2].

Even though a strong link between training and productivity is suggested in the literature[3], employers are reluctant to make a large investment in the area. In some cases, this may be because of fear of poaching, i.e., the practice of stealing already trained employees from a competitor. In our survey, 7 out of 10 instructors stated that they felt money was the chief impediment to more continuing education for journeymen; 50% identified time as a problem. These sentiments are echoed by journeymen's responses to similiar questions -- 78% said they thought tha costs of continuing education should be shared, chiefly by the government (35%), the employer (27%) and themselves (19%). They also recommended that continuing education courses be offered off-season, i.e., in the winter (48%), or in the evening (36%).

What does a lack of continuing education suggest about the quality of on-the-job instruction? Probably that our on-the-job trainers are not as good as they might be. While recognizing that a failure to pursue continuing education opportunities does not indicate disaster or constitute a character flaw on the part of journeymen -- we have already stated that there are many reasons why journeymen do not upgrade their qualifications, some of them beyond their personal control -- one should also note that this sends apprentices a strong message: "Education ends at certification" and "I can ignore technological change and still practice my trade". Failure to pursue continuing education opportunities reinforces the idea that the trades are not knowledge based and the image of these professions is thereby tarnished. Continuing education is a measure of training quality and an image enhancer.

Recommendation #50, below, implies that, while highly recommended, continuing education should not be mandatory. The point of this recommendation is to increase continuing education opportunities in PEI, and to "sell" upgrading to the trades for the sake of a higher standard of workmanship and professional pride.

In this recommendation we follow the example set by other provinces (for example, Nova Scotia, Alberta, Ontario) with an established record in the field of continuing education. In these provinces it is generally the case that the province does not directly invest large amounts of money in curriculum development, instructor time, etc. These costs are usually borne by a variety of contributors -- for example, the federal government, training institutions, manufacturers, employers, and the journeymen themselves. As noted earlier, employers in our survey preferred similiar cost-sharing arrangements. Unless continuing education emerges as a condition of re-certification, we see the role of the Apprenticeship Branch as that of animator.

Recommendation #50

That the Department of Industry, labour organizations, training agencies, and trades and employer associations promote continuing education for journeymen as part of their campaign to improve the image of the trades.

The Apprenticeship Branch currently issues Certificates of Achievement to recognize certain sub-trades. Earlier in this document, we recommended that Certificates of Achievement could apply to post-certification specialty training. In the context of continuing education, they could apply to training in specialties, generic subjects (for example, supervisory skills, blueprint reading) or "refreshers", as suggested by employers in our survey as potential areas for upgrading in the context of continuing education. Continuing education courses could also be a vehicle to encourage older, unqualified tradespeople to obtain formal, professional credentials.

Recommendation #51

That the Department of Industry extend its "Certificate of Achievement" program to recognize post-certification training and that such training be included as an endorsement on journeymen's certificates of qualification.

The results of our survey also indicate that most (81%) employers feel that Holland College, alone or in collaboration with manufacturers or interest groups, is well placed to offer continuing education courses because of its physical plant, the expertise of its instructors, and its "neutral", non-commercial status. This report also assumes that privately sponsored continuing education, such as that offered by automobile manufacturers for their dealers or industry associations such as ICAR, will carry on unfettered by greater community college participation.

High technology applications dominated employers' lists of worthy continuing education topics, and winter months (48%) and evenings (36%) appear to be more attractive times to would-be students. Employers cited Charlottetown (27%) and "regions" (i.e., 3 or 4 locations across the Island, as suggested by 15% of those surveyed) as ideal locations. Employers also indicated a willingness to share the cost of continuing education with government, manufacturers, employees, and others.

Recommendation #52

That Holland College, in cooperation with manufacturers, labour organizations, and others, offer continuing education courses to journeymen on a variety of subjects and at a variety of times and locations.

B. (iii) Ratios

By establishing a journeyman-to-apprentice ratio and by attempting to uphold it on job sites, apprenticeship has traditionally tried to exert a degree of control over on-the-job training. Ratios are and should be a "quality" measure : on busy job sites and for complex and dangerous tasks, a higher journeyman-to-apprentice ratio protects public and worker safety, exposes the apprentice to a variety of talents, and gives him or her continuous learning opportunities while ensuring that work can progress.

In Prince Edward Island, ratios are set by the Apprenticeship Advisory Board, an appointed body with representation from a variety of apprenticeship stakeholders. When making its determinations, the Board takes into consideration educational and safety concerns, and tries to arrive at a standard which is fair to all.

In the marketplace, however, "ratios" have gone from being a straightforward training measure to an economic issue and the focus of bitter debate. It is plain that there are occasionally violations of ratio requirements in the workplace. Some contractors break the rules and hire disproportionate numbers of apprentices. Other contractors and employers accuse labour unions of inflating the "journeyman end" of ratios in order to keep apprentices out of the labour market and thus protect unionized journeymen's jobs. What began as a legitimate device to promote education, they say, has quietly become a protective measure. When Training Officers or Electrical Inspection Branch Officials arrive to investigate alleged violations, it is difficult to prove infractions and, in any case, they have little authority to police the site, and few penalties to exact.

The results of the Committee's employer survey show that although some opinions on ratios are extreme and strongly held, the majority of employers are satisfied with the current methods of determination (69% are in favour) and enforcement (57% approve). Where problems exist, as described above, there is little consensus on how they should be solved. The wide variety of legislated ratio measures in other provinces indicates that a similiar lack of consensus exists across the country[4].

In the absence of any apparent difficulties with the current procedure for determination, the Review Committee recommends that the Apprenticeship Advisory Board, as a neutral body, should continue to set apprenticeship ratios in this province. Changes to the Board's composition, as recommended below under "Administration and Legislation" will broaden the Board's membership and outlook and can only serve to strengthen its impartiality in this and all other thorny issues.

Recommendation #53

That the Apprenticeship Advisory Board continue to set and monitor ratios for all apprenticeable trades.

Changes are indicated to current enforcement rules and practices, however. It is particularly difficult, if not impossible, to enforce ratio requirements and punish violators in trades where apprenticeship is not mandatory -- a fact which adds weight to arguments in favour of compulsory participation. Most employers comply with ratio requirements, however, and for the few who do not, transferring the responsibility for enforcement to another authority would probably not make a great deal of difference. Because of the training, health, and safety consequences of violations in compulsory trades, however, enforcement must be regular, and penalties must have "teeth". The Department of Industry must therefore revise its legislation to reflect the seriousness with which it views violations. Such legislation must be strictly and evenly enforced by the Department and allied agencies.

Recommendation #54

That the Department of Industry provide for stronger penalties for ratio violations in compulsory apprenticeable trades, and that these laws and regulations be strictly enforced by the Department and other responsible authorities.

B. (iv) Recognition of Excellence

As an adjunct to the quality control measures described above in Recommendations #46-54, the Committee also recommends that the Department of Industry (and others) establish awards to recognize excellence in on-the-job training. Such token awards will never wholly compensate the employer for the money, time, and effort spent on training, but they would put a spotlight on the employer's often overlooked contribution. They would emphasize the importance of good training in apprenticeable trades, and would say "thank you" for a job well done.

Recommendation #55

That the Department of Industry establish annual awards which recognize excellence in on-the-job training, and that trades organizations and other interested parties be encouraged to establish similiar awards.

C. Model of Course Delivery

Inasmuch as on-the-job training follows a model, it is this: traditionally, the trades have followed a time-based standard, for example, 8000 hours (or 4 years) for electricians and carpenters, and 6000 hours (3 years) for welders. In some trades, particularly those with seasonal cycles, the odds are against accumulating 2000 hours a year, and the actual length of apprenticeship can stretch into the indefinite future. Still, there exists for each trade a minimum average time necessary to learn the requisite skills. Most employers (72% of our survey) feel that the prescribed length of apprenticeship for their trade is "just right".

In recognization of the difficulties involved in amassing requisite hours, and in concert with the in-school trend to modular, competency-based education, this report recommends that on-the-job training also be measured in terms of skills mastered, rather than hours logged. In fact, this is often already the case. Log books describe the competencies typical at each level of apprenticeship and many apprentices apply to write their qualifying examinations before they have worked the standard number of hours. The following recommendation simply gives formal recognization to actual practice.

Recommendation #56

That apprentices' on the job experience henceforth be measured in terms of skills to be acquired.

NOTES: ON THE JOB TRAINING

[1] Margot Gibb-Clark, "Companies invest more in training," Globe and Mail (October 26, 1990): B11.

"Big firms take lead in worker training," Financial Post Daily (October 26, 1990): 5.

Both of these articles describe the preliminary results of a Conference Board of Canada study which found that larger companies spent an average of $475 per employee for training in 1989. Statistics Canada's Human Resource Training and Development Survey found that in 1986-87, Canadian firms spent approximately $160 annually per employee for training, and that "the incidence of training was low for small firms --- 27% of firms with less than 10 employees provided training, compared with 76% of firms with 100 or more employees and 92% of firms with 1000 or more employees" (reported in Andrew Sharpe, "Training the work force: a challenge facing Canada in the 90s," Perspectives on labour and income 2, no. 4 [Winter 1990]: 24).

[2] In our survey, 70% of the firms had less than 25 employees.

[3] See, for instance, the results of a 1989 Environics poll conducted for the Canadian Labour Market Productivity Centre, "Business and labour leaders speak out on training and education". In the poll, business and labour leaders identified "training and education" as the most important factor (more important than lowering government deficits or increasing research and development spending) in improving Canadian competitiveness (reported in Andrew Sharpe, "Training the work force: a challenge facing Canada in the 90s" and Margot Gibb-Clark, "Training considered key to competing," Globe and Mail [January 18, 1990]: B1).

Other CLMPC research cites a direct connection between reduced levels of government spending on training in the 80s (combined with a failure of the part of the private sector to compensate for that lower spending) and a decline in the growth of canadian productivity during that period. Canadian productivity growth in the 80s was the lowest among the seven major OECD countries (reported in Patricia Lush, "Poor economic performance and training linked: study," Globe and Mail [March 1, 1990]: B3).

[4] For an overview of ratio arrangements in other provinces, see P.E.I. Department of Labour and Fisheries, Apprenticeship Branch, Report of the committee on apprenticeship ratios (Queen's Printer, 1984).

CHAPTER

6

ADMINISTRATION AND LEGISLATION

ADMINISTRATION AND LEGISLATION

This section of the review document will examine inter- and intra-governmental relations on apprenticeship. In considering such relations, the Committee hopes to establish whether the present institutional culture favours and has kept pace with trades training. The report will also explore whether the current legislative and regulatory framework for apprenticeship provides for present and future needs. Our investigations will begin with the national situation and proceed to the microcosm of the Apprenticeship Branch itself.

A. The National Picture

Nationally, apprenticeship presents a picture of great diversity, renewal, and experimentation. In this country, education, including adult education, has traditionally been a provincial matter, and this has led to some rather marked inter-provincial differences of curriculum and program design. These differences emerge for apprenticeship just as they do for public school programs or adult upgrading. In Quebec, for instance, apprenticeship does not include an in-school component. Ontario requires 9000 hours of training for farm equipment mechanics, while P.E.I. demands 8000 hours. Some provinces have applied the apprenticeship model to trades such as "jewellery manufacture and repair" or "plastic and rubber fabrication"; elsewhere, only more traditional trades are apprenticeable.

In 1958, in order to introduce some order into this diversity, the provinces, territories, and federal government banded together to introduce the Interprovincial Standards Examination Program. Its purpose was and is "to establish uniform apprenticeship trades standards and examinations to assist skilled workers to transport their skills from one part of Canada to another."[1]. The program offers inter-provincial exams -- so-called "Red Seal" examinations -- in 28 trades. Journeymen who qualify in Red Seal examinations in one province need not re-qualify or match a different standard in order to practice in another province.

A small and economically disadvantaged province like P.E.I. will probably always train workers "for export", and our participation in the Red Seal program gives Islanders a ready passport to jobs elsewhere in the country. This feature becomes increasingly important in light of the Maritime provinces' tentative move to economic union, industrial adjustment, and the possible future impacts of globalization of production. Red Seal cooperation also means that we can reduce the substantial costs of developing standards for emerging trades and updating examinations. By pooling resources with the other provinces we achieve economies of scale. It is probably also true that the institution of Red Seal standards for today's 28 trades has meant an improvement in quality and workmanship in those trades -- a single standard is often a higher standard.

There are those, of course, who criticize Canada's degree of government involvement in trades training and decry the "bureaucratization" of apprenticeship[2]. In answer to these critics, one may point to the training situation south of the border, where apprenticeship is still largely in the hands of corporations and labour organizations, and where training inequities exist from town to town and state to state. Corporate heads of personnel struggle to establish training equivalencies and the U.S. Bureau of Apprenticeship and Training has only just begun to introduce national measures of quality[3]. Whatever price we in Canada pay in time spent in interprovincial consultation and documentation is more than compensated by our greater degree of mobility and -- one hopes -- higher overall standard of training.

The Interprovincial program has already, although in a tentative way, turned its attention to issues such as curriculum, training models, terminology, and so on. These actions are a logical extension of the program's original mandate. Apprenticeship, and training in general, will face some stiff challenges in the years to come and interprovincial cooperation will foster a creative, cost-effective, and unified response to those challenges. Expansion of the Interprovincial mandate to include a wider range of issues of national interest would contribute to that response.

The following recommendations, then, express strong support for the Interprovincial program and urge greater cooperation on a host of issues which affect apprenticeship in all Canadian provinces.

Recommendation #57

That the Department of Industry continue to support the Interprovincial Standards Program and to recognize and offer apprenticeship training in all Red Seal trades.

Recommendation #58

That the Department of Industry recommend that the Interprovincial Standards Program continue to expand its mandate to include cooperation on a broad range of matters of concern to apprenticeship in all Canadian provinces.

B. The Provincial Picture

"Over the years, the Apprenticeship Branch has been a part of the administrative structure of four different departments, under ten [now eleven] Ministers, and six Deputies, and has been housed in a number of locations in the Charlottetown area"[4]. This quotation from a 1988 publication commemorating 25 years of apprenticeship in P.E.I. neatly summarizes the problematical position of apprenticeship training within the provincial government: apprenticeship is a difficult component of a complex portfolio.

Since 1985, apprenticeship has been part of the provincial Department of Industry. This Department was created in an attempt to focus the economic development energies of provincial government policy, and it is commendable that the administration of the day saw human resources and apprenticeship as vital components of the overall economic plan. Human Resources, including apprenticeship, have never been successfully integrated into the Industry portfolio.

Department of Industry promotional literature, for instance, makes only passing reference to training options available in this province. The P.E.I. Development Agency assists in the marketing of products, not people. Training ideas and packages are not aggressively "sold" to business (neither large nor small, new nor established) and communities (neither thriving nor ailing). Because of a dearth of attention and integration, the human resources strategy of the Department of Industry remains largely reactive, not proactive.

The Apprenticeship Branch and Human Resources Division are not housed with the rest of the Department. This separation is probably symptomatic of a deeper malaise and not simply due to physical necessity. The "otherness" of apprenticeship is perhaps the "fault" of the subject area: across Canada, adult education, including apprenticeship, has traditionally been an add-on or afterthought. Whatever the institutional arrangements, apprenticeship is usually tacked on to other types of training while retaining semi-independent status. What is gained in independence, however, is usually lost in overall power and ability to make the "voice" of apprenticeship heard. A greater measure of integration would give apprenticeship, and training in general, a higher profile.

Program integration would also make a valuable contribution to the economy. In Chapter Five, this report alluded to studies which suggested a strong correlation between dollars invested in training and greater productivity, and that relationship should hold true in this province. Here in P.E.I., with our limited natural resources, the Department of Industry should actively develop our human resources, and apprenticeship can be an important part of that development strategy.

Apprenticeship personnel should attend regular strategy meetings and information on apprenticeship training should be included in departmental promotions, literature, and on-line services aimed at new and established employers. The Department should also highlight apprenticeship in strategies to revitalize communities such as Summerside or to attract new investment to the province.

The more active role for apprenticeship described in Recomendation #59, below, need not mean an influx of funds. Rather, it requires a change in philosophy and a redirection of effort. Apprenticeship must relinquish some of its traditional independence and seek to blend into the broader training picture. For its part, the Department of Industry must make a greater effort to include training as a core program.

Recommendation #59

That the Department of Industry make apprenticeship a more integral part of its economic development strategy.

Recommendation #59 does not address relations with other government departments and agencies. It is necessary, however, to examine such relations in the course of an administrative review.

In this and other sections of this report, we have already noted the relationship between apprenticeship and the provincial Departments of Labour and Education. The former is responsible for certain industrial inspection programs as well as labour standards and market conditions. The latter, of course, deals with broad and specific matters of educational policy, for example, guidance, vocational education, and the public school curriculum. Areas of apprenticeship policy overlap also exist with Holland College, the Department of Health and Social Services (inasmuch as it administers trades training programs for social assistance recipients) and the newly formed Women's Secretariat (with its interest in equity isues). Apprenticeship-related communication amongst all of these administrative bodies tends to be on an ad hoc, informal, or crisis-driven basis.

While it is not advisable to promote bureaucracy for bureaucracy's sake, there is a need for a slightly more regular and structured approach to interdepartmental communications on apprenticeship (and training in general). More and better consultation on common policy areas would eliminate duplication and promote a team approach. Formation of an interdepartmental training committee, or the routine circulation of memoranda and policy papers to colleagues in other divisions, would constitute steps towards improved communications and greater efficiency. External client groups would also benefit from and contribute to information exhange.

Recommendation #60

That the Department of Industry encourage the provincial government to establish a framework for ongoing communications on apprenticeship within provincial government departments and agencies as well as external client groups.

The Department of Industry should also promote apprenticeship within government by encouraging the creation of more apprenticeable positions within the public sector. Not only would the creation of such positions benefit the government as employer and the public as consumer (inasmuch as apprenticeship is an effective training methodology and government requires the services of qualified tradespeople in various disciplines), it would signal the real commitment of the provincial government to human resources development.

Recommendation #61

That the Department of Industry encourage creation of apprenticeship training within provincial government departments and agencies.

C. The Apprenticeship Branch

At the level of the Apprenticeship Branch itself, the review panel examined how information flowed from Trade Advisory Committees to the Apprenticeship Advisory Board and the ministry. The Committee's research concentrated on how the composition of advisory bodies affected the apprenticeship program. We also considered whether apprenticeship's enabling legislation continued to represent program needs.

Recommendations #34-36, in the "In-School Training" section of this report, suggested an expanded and more active role for Trade Advisory Committees. The current discussion will refer again to the role of Trade Advisory Committees, but in the context of their relation to provincial government apprenticeship administration.

Apprenticeship's close links with industry, through Trade Advisory Committees, represent one of the program's true strengths. Only through regular consultation at a grass roots level can the administrators hope to deliver a relevant training package. Yet many of the Apprenticeship Branch's Trade Advisory Committees are inactive. Prompt attention to policy matters demands much more active and regular participation.

Also, as it now stands, the Trade Advisory Committees deal mainly with examination development and review. The committees' mandate could be broadened considerably to include matters pertaining to educational pre-requisites, recruitment, curriculum, and any other issues which require trade-specific input.

As was the case with Holland College, the Apprenticeship Branch's Trade Advisory Committees are usually composed of a few dedicated and experienced tradespeople. As suggested previously in Recomendation #35, the Apprenticeship Branch and Holland College should both appoint a wide variety of tradespeople -- old hands and new graduates, representatives of large and small firms -- to a single shared committee, in the interest of a more creative and efficient use of limited resources -- people.

Recommendation #62

That the Department of Industry introduce provisions to broaden the mandate and change the composition of Trade Advisory Committees, and that such Trade Advisory Committees assume a more active role.

Similar recommendations would improve the functioning of the Apprenticeship Advisory Board and fit it for the issues and challanges on the horizon. The present enabling legislation, for instance, simply states that the Board must have equal representation from "employees" and "employers", with no reference to their trade affiliation and no recognition of the interests of other parties such as the apprentices themselves or designated groups. To encourage formation of an issues-oriented team with representation from all interested parties, we suggest, initially, a sectoral approach with an eye to the future (e.g., X% from construction and automotive trades, X% from emerging industries, mandatory representation from designated group members in the trades), and within that framework, recognition of the traditional labour-management split. Apprentices and/or new graduates should also have representation on the Apprenticeship Advisory Board.

Recommendation #63

That the Department of Industry introduce provisions on the composition of the Apprenticeship Advisory Board which more accurately reflect the present and future needs of apprenticeship.

This report also recommends that the present enabling legislation be revised to reflect changes which have occurred since its last major revision in 1974. The first of these changes concerns the process for designating apprenticeable trades. Although the Apprenticeship and Trades Qualification Act states that the Apprenticeship Advisory Board has the power to determine whether a trade is "appropriate for a contract of apprenticeship", neither the Act nor its regulations make any provision for the manner of that determination. If apprenticeship continues to expand, for example through a recognition of specialized trades, the process of determination needs to be more structured. For the present, based on the suggestions of departmental officials and of employers, we present the following guidelines:

1) New designations should be based on industry demand and petition, but the Board should guard against splintering trades prematurely as a response to increasing specialization.

2) The Board should look favourably upon requests if training is available in the region. The board should entertain exceptions, however (as in the case of emerging industries).

3) When making its determination, the Board should consider precedents set by other provinces. Provinces should cooperate to produce profiles, standards, and trades curricula.

4) A requirement for a minimum number of trainees need not apply, especially where precedents have been set and training is available elsewhere, as above.

5) The province should continue to offer training and certification for all Interprovincial trades.

6) The province may extend the apprenticeship model to emerging industries on an experimental basis.

7) The Apprenticeship Advisory Board should review requests and make recommendations to the Minister, who should be the final authority.

Recommendation #64

That the Department of Industry establish a formal procedure for designating apprenticeable trades.

While considering the process for new designations, the Department should elaborate on its (presently informal) system for determining credit in the case of related but overlapping trades. Increasing specialization and a need for greater occupational flexibility and mobility (as occasioned by rapid economic downturns and expansions, the creation of common markets, and a trend to globalization of production) may lead to the creation of a new multi-skilled species of tradesperson. The Department should devise guidelines for establishing subject "cores" and determining overlaps in related trades and should be prepared to advance credits to candidates who wish to cross trades.

Recommendation #65

That the Department of Industry establish a formal procedure for determining core curriculum and areas of overlap in related apprenticeable trades.

Finally, we recommend a general revision of the Apprenticeship and Trades Qualification Act and program materials (for example, promotional literature) to reflect changes which may result from adoption of this report's recommendations.

Recommendation #66

That the Department of Industry revise apprenticeship legislation and program materials to reflect changes resulting from adoption of the recommendations in this report.

NOTES: LEGISLATION AND ADMINISTRATION

[1] Interprovincial Standards Program, "A Passport to jobs in your trade" [Pamphlet] (The author, n.d.).

[2] See John Stackhouse, "The Human scrap heap," p.50.

[3] For a discussion of quality control measures in apprenticeship training in the U.S., see:

U.S. Department of Labor. Employment and Training Administration, *Apprenticeship 2000: summary report of focus papers* (Government Printing Office, 1989) 8-16.

U.S. Department of Labor. Employment and Training Administration, *Work-based learning: training America's workers* (Government Printing Office, 1989) 35.

[4] P.E.I. Department of Industry, *Apprenticeship in P.E.I.: past, present, and future* (Queen's Printer, 1988) 22.

CHAPTER

7

FINANCIAL PARTNERSHIPS

FINANCIAL PARTNERSHIPS

The placement of a consideration of financial matters at the end of this report is an indication of the all pervasive nature of finance. Recruitment is an economic issue and so are in-school and on-the-job training and institutional culture. We have alreadv made some specific financial recommendations in these areas and we refer the reader once again to those relevant sections in preceding chapters. Under "Financial Partnerships", we will include suggestions of a supplementary or more general nature.

As indicated in previous sections of this report, apprenticeship is based on a very complicated, sometimes precarious partnership. Translated into financical terms, the contributions of the principle partners may be summarized as follows:

The Apprentice makes a direct contribution to training through investment in tools and, sometimes, payment of pre-apprenticeship tuition fees. Lower wages and opportunities foregone while training constitute indirect or hidden costs.

The Employer pays apprentices' wages and also covers the costs associated with increased supervision and lower productivity.

The Provincial Government finances overall program administration. The province also allocates a small sum to cover part of the out-of-province travel expenses of apprentices who must attend in-school training elsewhere.

The Federal Government covers 100% of apprentices' in-school tuition fees (including some pre-apprenticeship fees), plus income support such as unemployment insurance benefits and travel allowances during the in-school training period. Overhead for associated program (for example, unemployment insurance) administration is also a federal responsibility.

The Training Institution's expenses arise from curriculum development, salaries, and capital budgets (for example, equipment budgets).

A. Federal Commitment

The federal government has already capped its contribution to apprenticeship training in this province. Since 1985, with the introduction of the Canadian Jobs Strategy, federal employment and training policy has concentrated on the persons and industries in most need, that is, the chronically unemployed, designated group members, and skills shortage occupations.

Initially, this meant that the federal government was unwilling to purchase apprenticeship training seats in occupations deemed over-subscribed. Federal funds were accordingly capped at circa 1987 levels. In more recent years, this cap has remained in place, and will continue to do so for the life of a federal provincial training agreement now under negotiation. The Government of Canada has stated that, over and above capped contributions, it will help fund training for emerging or skills shortage occupations as well as efforts to promote greater designated group participation in apprenticeship. When that federal-provincial agreeement expires, the responsibility for directing Government of Canada dollars to training will be assumed by the newly-created Canadian Labour Force Development Board and its regional affiliates.

To date, the effect of changing federal policy In P.E.I.'s apprenticeship training arrangements has been negligible to most observers. Thus far, the province (using federal dollars) has been able to accomodate all requests for training, since in recent years there have been fewer requests. The impact of the funding cap has been felt at Holland College, however. In discussions with the review Committee, College staff described a climate of administrative uncertainty: they are not sure, from year to year, what their budget, which depends heavily on federal training dollars, will be. Planning for the future under such circumstances is problematic.

Recommendation #67

That all partners in apprenticeship recommend that the Government of Canada and the Canadian Labour Force Development Board, give apprenticeship a high priority and maintain interprovincial consistency of apprenticeship programs.

Recommendation #68

That there should be a continuing strong federal commitment for apprenticeship, expressed financially and through supporting programs.

B. Provincial Commitment

One should, at this point, identify several factors and trends which suggest what the future of apprenticeship may be in the absence of current levels of government assistance. For instance, privatization of government programs and services -- and the creation of the Canadian Labour Force Development Board essentially constitutes privatization -- usually means a greater reliance on the private sector and a market-driven, free enterprise approach. The Government of Canada has already indicated that it desires greater corporate participation in the planning and financing of training[1].

Greater private sector involvement may stimulate the training environment, but there may also be a "down" side to privatization: in a recent study, the Canadian Labour Market Productivity Centre linked privatization of training, and a corresponding decrease in the use of publicly funded training agencies, with a decline in overall training quality, and an increase in funding and planning problems at publicly funded community colleges[2]. In the almost total absence of private training institutions, Prince Edward Island relies heavily on the services provided by Holland College, a public body, so this particular, dramatic effect of privatization may not be strongly or immediately felt here. Still, one should recognize the contribution made to quality, continuity, and uniformity by public institutions.

Training in Prince Edward Island will be directly affected by a proposed greater reliance on employers, however. Apprenticeship already exhibits a high degree of market sensitivity and dependence on the private sector -- probably more than many other types of occupational training, since employment is an inherent part of apprenticeship. Are employers of apprentices willing and able to pay more?

Recent federal-provincial studies of apprenticeship have suggested that when employers are asked to make a greater financial contribution to training, fewer employees are trained[3]. The size of firm is another variable in the funding equation: as mentioned in the context of on-the-job training, the Conference Board of Canada has demonstrated that it is large, not small corporations which invest most in training[4]. It is known that P.E.I. has a high proportion of small employers, employers who certainly dominate in the ranks of firms training apprentices[5].

Greater employer involvement is not out of the question, of course. In 1990, the Canadian Labour Market and Productivity Centre Task Forces on the Labour Market Development Strategy suggested some novel approaches to encourage private sector funding, including the establishment of individual training accounts for employees or the institution of Registered Skill Development Savings Plans (resembling Registered Retirement Savings Plans)[6]. Unless we can develop similar, innovative, fair, and manageable ways to increase private sector financial commitments to apprenticeship, however, asking local employers to pay a greater share of the bill does not appear to be a solid option.

Employers in our survey concur with this analysis. When asked how the costs of apprenticeship should be apportioned, they were emphatic: 57% responded that the status quo was the best arrangement. Fifteen percent suggested that governments should pay more, and 13% stated that apprentices could make a greater contribution. Other fund-raising suggestions were for employer payroll taxes (to be granted back to the employer for purposes of training, as suggested by 4% of respondents), tuition fees accompanied by optional student loans (7%), and a variety of tax breaks to offset the costs of continuing or greater participation in apprenticeship (1%).

When asked who should cover the additional costs if the federal government capped or reduced its contribution to apprenticeship, employers were unequivocal about who should not pay -- themselves (43%). Thirty percent thought that the federal government should continue with its current level and mode of payment, 34% said the provincial government should contribute more, and 25% named apprentices as a possible source of more funding.

It is difficult to say whether the reason for the employer response cited above stems from simple inability to pay more or a traditional dependence on government funding. In their comments, participants in our survey made a direct connection between the government's, and especially the federal government's, responsibility to manage social and macroeconomic policy and its duty to fund apprenticeship accordingly: a greater responsibility to participate in social issues translates, in the eyes of participants, into a larger overall financial contribution.

In making its recommendations on financial arrangements, the Review Committee has taken into account the implications of privatization and the real and perceived ability/responsibility to contribute of all partners in apprenticeship. Other factors which merit consideration are as follows:

1) As noted in Chapter One (note 3), it is probably true that employers and apprentices do pay the largest share of the "bill" associated with apprenticeship.

2) It is important to remember that apprentices, unlike other students, contribute tax revenues while they are learning, and that their presence in the market creates further economic leverage by virtue of their contribution to greater employer productivity.

3) Investment in training is generally held to be a positive, active gesture. Several employers in our survey consider the only alternative to such investment to be unemployment insurance and social welfare programs, which have negative or passive connotations.

4) Prince Edward Island is the only Canadian province which does not make a direct contribution to apprenticeship training by purchasing its own training seats.

5) Many of the recommendations put forward in this report represent a modest initial investment for a greater final saving. Institution of some of the changes to recruitment and choice of training model, for instance, should result in fewer dropouts and more qualifications in a shorter than average length of time. The key to fiscal solvency may lie in a more efficient use of program funds, not necessarily in ever more training dollars.

6) Training is a federal, provincial, and individual responsibility. Generally speaking, however, it is less painful to share a greater burden through broad taxation schemes rather than through direct individual contribution. A system of taxation, with credits or deductions allowed in recognition of activity to develop human resources, might be a fair and positive way to address future funding gaps.

Recommendation #69

That the province of Prince Edward Island make a stronger financial commitment to apprenticeship.

Recommendation #70

That the Department of Industry explore innovative means of providing additional financial support to apprenticeship.

C. Tax Legislation

The fiscal arrangements for apprenticeship recommended by this report envisage a continuing strong federal commitment, a larger provincial contribution, and the exploration of other funding arrangements, such as payroll taxes or individual training accounts, which have been successfully implemented in other contexts or jurisdictions[7]. The contributions made by the employer and apprentice are already substantial, but to offset these and possible additional future contributions, and to encourage participation in apprenticeship, this report recommends the introduction of tax credit/deduction provisions which would favour human resource development.

Recommendation #71

That the Department of Industry and other partners in apprenticeship recommend that the Government of Canada introduce changes to income tax legislation which would give greater recognition to personal and corporate investment in human resource development, including apprenticeship training programs.

NOTES: FINANCIAL PARTNERSHIPS

[1] See Preface, note 2.

[2] Canadian Labour Market Productivity Centre, The Canadian Jobs Strategy, directions for change, Labour Issue Papers no. 4 (CLMPC, 1991). This CLMPC study describes the effect of Employment and Immigration Canada's Canadian Jobs Strategy, which makes increasing use of training provided by private training agencies, on publicly funded community colleges in Canada.

[3] Ontario. Ministry of Skills Development, Apprenticeship cost study by Abt Associates of Canada, 96. Training would be somewhat reduced, though not altogether eliminated.

Similar concerns are expressed in Alberta. Department of Career Development and Employment, Canada-Alberta study on apprenticeship training, iv.

[4] See Chapter 5, note 2.

[5] In 1987, 93% of firms in P.E.I. had less than 50 employees, 75% had less than 5 employees (reported in Pat Thompson, "The Small business sector in P.E.I. [Canadian Federation of Independent Business, 1990]).

In the Review Committee's survey of employers, 70% of participating firms had less than 25 employees.

[6] Report of the CLMPC Task Forces on the Labour Force Development Strategy, 250-255.

[7] See, for instance:

Canada. Department of Employment and Immigration, "Reflections on a fact-finding trip to the United Kingdom, West Germany, and Holland."

Report of the CLMPC Task Forces on the Labour Force Development Strategy, 250-255.

CHAPTER

8

THE FUTURE OF APPRENTICESHIP

THE FUTURE OF APPRENTICESHIP

In Chapter One of this document, the Review Committee outlined the many strengths of apprenticeship. A proven and effective training methodology, apprenticeship has served generations of students and a wide variety of trades. Apprenticeship provides an education which is both practical and theoretical, general and specific. Careful program design and national cooperation encourage uniformly high standards and mobility. Furthermore, apprenticeship generates financial returns while students are still in training, and the impact and utilization rates for graduates are high.

Another of apprenticeship's great strengths -- and surely the reason for its longevity and liveliness -- is the network of partners which informs and supports it. Apprenticeship depends on shared communication and responsibility. Well developed channels of communication ensure a good match between course structure and personal and workplace expectations. Shared responsibility, and especially shared financial responsibility, reduces the burden on individual participants and encourages teamwork. In making recommendations, the Review Committee has tried to preserve all of these positive features, confirming and strengthening in particular apprenticeship's infrastructure for communication and financial support.

The Committee has also attempted to improve or correct design features of apprenticeship which need fine tuning or outright change. A recurring theme of recommendations for change is "image" and how it affects recruitment policy, performance, and professional pride. Many of the report's recommendations also deal with a requirement for "currency" and "quality control" in the in-school and on-the-job training program. The report also promotes a "flexible" approach to course delivery model, content, and trades served and stresses that learning should be a lifelong undertaking.

The recommendations in this report demonstrate a strong future orientation. Apprenticeship is in the midst of a natural evolution. In the future, it will assume some of the coloration of other human resources development schemes and will, in turn, extend its better features to those other training models.

Apprenticeship must be anticipatory as well as reactive. It can and will serve new industries and populations. Apprenticeship training can also be part of a broader economic development strategy to benefit industry and individuals.

Over the centuries, apprenticeship has shown that it has the ability to adapt. With a measure of cooperation, imagination, and good will on the part of all major stakeholders, it can easily meet the challenges posed by technology, economic roadblocks, and the ever-changing, sometimes conflicting demands of the marketplace. Apprenticeship is resilient. It is an institution with a future as illustrious and storied as its past.

APPENDIX A:

SELECT BIBLIOGRAPHY OF WORKS CONSULTED

Akyeampong, Ernest B. "Apprentices: graduate and drop-out labour market performances." Perspectives on labour and income 3, no. 1 (Spring 1991): 9-15.

Alberta. Department of Career Development and Employment. Alberta's apprenticeship and trade certification system, programs, and services: excellence through training and experience. Queen's Printer, 1990.

______________________. Canada-Alberta study on apprenticeship training. Queen's Printer, 1987

______________________. The training and certification of Alberta's skilled workforce, discussion paper. Queen's Printer, 1990.

Alberta. Department of Career Development and Employment. Apprenticeship and Industry Training Review Committee. Final report. Queen's Printer, 1988.

___________________. Comments of the Advisory Panel on the Review Committee final report. Queen's Printer, 1988.

Bell, Don. "Future trends in apprenticeship training: implications." Remarks to the 1990 convention of the Association of Canadian Community Colleges, May 28, 1990.

Briggs, Vernon M., Jr. and Felician F. Foltman, eds. Apprenticeship research: emerging findings and future trends. Cornell University Press, 1981.

British Columbia. Ministry of Advanced Education and Job Training. Canada/British Columbia study of apprenticeship. [Queen's Printer, 1987].

Canada. Department of Employment and Immigration. "Reflections on a fact-finding trip to the U.K., West Germany, and Holland." The Department, 1990.

______________________. Success in the works: a profile of Canada's emerging workforce. Supply and Services, 1989.

Canada. Department of Industry, Science, and Technology. Adjusting to win: report of the Advisory Council on Adjustment. Supply and Services, 1989.

Canadian Construction Association. "Submission on apprenticeship training to the Hon. Jean Charest, Minister of State for Youth." CCA, 1987.

Canadian Construction Association. Building and Construction Trades Department, AFL-CIO Canadian Automotive repair and Service Council. "Submission to Michele Jean, Assistant Deputy Minister, Employment and Immigration Canada, regarding improving the service to apprentices on unemployment insurance while at trade school." CCA, 1990.

Canadian Labour Market and Productivity Centre. The Canadian Jobs Strategy, directions for change. Labour Issue papers, no. 4. CLMPC, 1991.

____________________. "A Framework for a National Training Board." CLMPC, 1990.

____________________. Report of the CLMPC Task Forces on the Labour Force Development Strategy. CLMPC, 1990.

Coles Associates. A Study of the apprenticeship training program in Prince Edward Island. Prepared for the P.E.I. Department of Industry and Employment and Immigration Canada, 1987.

Coles Associates. Management Consulting Division. Report of the federal-provincial study of apprenticeship in New Brunswick. Presented to the Federal Provincial Working Group on the Apprenticeship Study for New Brunswick, July 1987.

Glendenning, Donald and Thomas Hall. Vocational education on Prince Edward Island, some new directions. 2 vols. The authors, 1988.

McMillan, Charles. Standing up to the future: the Maritimes in the 1990's. Council of Maritime Premiers, 1989.

Manitoba. Department of Education and Training. "Executive summary of Manitoba's Apprenticeship Study." [The Department, 1987].

______________________. Partners in skills development; the report of the Skills training Advisory Committee. Queen's Printer, 1990.

Northwest Territories. Department of Education and Canada. Employment and Immigration. A Joint Canada-Northwest Territories study of the NWT apprenticeship training system. [Queen's Printer, 1987].

Nova Scotia. Department of Advanced Education and Job Training. "Conclusion and recommendations of apprenticeship study." The Department, 1987.

Ontario. Ministry of Skills Development. Apprenticeship cost study by Abt Associates of Canada. Queen's Printer, 1987.

________________________. Ontario's labour market: long term trends and issues in the 1990s. Queen's Printer, 1990.

Ontario. Premier's Council. People and skills in the new global economy. Queen's Printer, 1990.

P.E.I. Department of Fisheries and Labour. Report of the committee on apprenticeship ratios. Queen's Printer, 1984.

P.E.I. Department of Industry. "Apprenticeship on P.E.I., past, present, and future." Queen's Printer, 1988.

________________________. First annual 1983 journeymen followup survey results. Queen's Printer, 1984.

P.E.I. Department of Industry. Apprenticeship Advisory Board. Report of the Committee on Transition from School to the Trades. Queen's Printer, 1990.

P.E.I. Department of Labour. Apprenticeship Review Committee. Final report. Queen's Printer, 1975.

Saskatchewan. Department of Education. Conference proceedings and recommendations of Trades 2000, apprenticeship training for the 21st centrury. [Queen's Printer, n.d.].

Saskatchewan. Depart of Education and Canada. Department of Employment and Immigration. Canada-Saskatchewan apprenticeship study 1987. Queen's Printer, 1987.

Sharpe, Andrew. "Training the work force: a challenge facing Canada in the 90's." Perspectives on labour and income 2, no. 4 (Winter 1990): 21-31.

Stackhouse, John. "The Human scrap heap" ROB Magazine 7, no. 9 (March 1991): 47-51.

Thornton, Amy and Alan Quaile. Apprenticeship, a way of life. PATQ, 1989.

U.S. Department of Labor. Employment and Training Administration. Apprenticeship 2000, short term research projects. U.S. Government Printing Office, 1989.

________________________. Apprenticeship 2000: summary report of focus papers. U.S. Government Printing Office, 1989.

________________________. Work-based learning: training America's workers. U.S. Government Printing Office, 1989.

Walsh, John. Report on skilled trades and career selection. Kitchener, Waterloo, and Guelph Training Advisory Council, 1989.

Yukon Territory. _Governement of the Yukon Territory and Government of Canada bilateral stduy of apprenticeship in the Yukon_. [Queen's Printer, 1987].

APPENDIX B:

LIST OF SUBMISSIONS AND INTERVIEWS

Submissions received

Regional Administrative Unit Two
East Prince Women's Information Centre
Professional Secretaries' International, Charlottetown Chapter
P.E.I. Hairdressers' Association
Georgetown Shipyards Local, International Association of Machinists and Aerospace Workers

Interviews

Mr. Eldon Rogerson, Regional Administrative Unit Three
Mr. Ray Malone, Department of Education
Mr. Gordon Bernard, Department of Education
Selected guidance counsellors, Units Two, Three, and Four
Dr. Donald Glendenning, Glendenning Associates
Mr. Don Bell, Director of Apprenticeship Programs, Alberta Department of Career Development and Employment
Ms. Marilyn Kenny, Equity Program Director, Apprenticeship Branch, Manitoba Department of Education and Training
Ms. Heather Orford, P.E.I. Women's Secretariat
Ms. Ann Maxwell and Mr. Dale Murphy, Employment Enhancement Program, P.E.I. Department of Health and Social Services
Mr. Mick Joiner, Charlottetown
Mr. Leo Gaudet, Tignish
Mr. Cameron MacDonald, Atlantic Trowel Trades College
Holland College administrative staff
Mr Don Anderson, Vice Principal, Holland College Summerside Centre and President, P.E.I. Adult Education Association
P.E.I. Council of Labour, administrative staff
P.E.I. Construction Association
P.E.I. Building Trades Council
Employment and Immigration Canada, administrative staff, Charlottetown and Summerside offices
P.E.I. Department of Industry, staff of Apprenticeship Branch
Apprenticeship Advisory Board Members
Mr. E. Power, Electrical Inspections Branch, P.E.I. Department of Labour

APPENDIX C:

HIGHLIGHTS OF SURVEY QUESTIONNAIRES

EMPLOYER QUESTIONNAIRE

Size of sample: 67 (39% of total registered employers)
Telephone survey conducted January to March, 1991

The Typical Respondent

The typical survey respondent runs a small shop with 25 employees or less (70% had 25 employees or less, 45% had 10 employees or less). Respondents also display heavy concentration in the construction or automotive trades (46% are plumbers, electricians, carpenters, or bricklayers; 24 % are engaged in motor vehicle repair or body work). 78% of the sample does not hire unionized labour.

Employer Perceptions of Apprenticeship

51% of employers surveyed stated that, given the choice between an apprentice or journeyman (and, in some cases, an unindentured learner), they would tend to hire an apprentice. Employers attributed this preference to reasons of economy, the ability to train workers to their own tastes, and a perceived greater knowledge base and degree of commitment on the part of apprentices. This outcome highlights features of apprenticeship which traditionally have been considered program strengths from the user's point of view, i.e., the ability to "customize" workers' skills and to deploy a uniformly trained and competent workforce at a lower wage. For the majority, these benefits continue to outweigh disadvantages such as apprentices' admittedly lower productivity in the early stages of training.

Recruitment and Screening Procedures

When asked whether they were satisfied with apprentices' education, attitude, technical skills, and labour market availability, employers reported mixed satisfaction.

Given the current concern over literacy levels in the workplace, it is surprising that 64% of employers expressed general satisfaction with apprentices' education. Lack of reading and other interpretive skills are nonetheless a common theme throughout the questionnaire, as respondents also suggested reading and math be incorporated into the in-school curriculum and upgrading courses for journeymen.

While 60% of employers reported that they were satisfied with apprentices' work ethic, 61% of those polled stated that they were not satisfied with apprentices' beginning technical skills. 49% of the sample indicated that pre-apprenticeship (compulsory or optional but recommended) might serve to give apprentices an introduction to tools and techniques.

52% expressed dissatisfaction with the labour market availability of apprentices. Most (88% of the dissatisfied) cited shortages, either now or in the future, as the reason for their dissatisfaction, and several employers (14% of the dissatisfied) attributed shortages to strict application of ratio requirements.

As far as changes or improvements to the present system for recruiting and screening apprentices are concerned, a significant number of employers felt that the quality and quantity of persons attracted to the trades could be improved with closer attention to high school counselling (28%) and a better "press" to counteract the blue-collar, unappealing image of the trades (31%).

Equity of Access

The overwhelming majority (84%) of those surveyed had never hired apprentices who are members of designated groups. In 44 cases (82% of those who had not hired), employers stated that this was because there had been no applicants. It is encouraging to note that of the 11 employers who reported they had hired designated group apprentices, 8 (73%) stated their employment had no special impact on the workplace, and 2 (18%) felt that the presence of these employees had a positive, healthy effect. 22% of those polled suggested that positive publicity might encourage greater designated group participation in apprenticeship, and 19% recommended subsidies to employers as an incentive. However, 24% of respondents felt that incentives were not necessary because, in their opinion, no special barriers exist for designated group apprentices, and 24% had "no opinion" on the subject.

Other Program Components

72% of respondents expressed approval of the prescribed length of apprenticeship for their trade but the results on the adequacy of the in-school program were more mixed, as 60% felt there was significant room for improvement in this area. Dissatisfied employers suggested that the in-school program was out of touch with the working world: 19% of these employers stated that in-school training was too theoretical, 9% felt that it was not sufficiently commercial, and 9% said that the curriculum was not up to date.. 6 (9% of the dissatisfied) also stated that they would like to see greater emphasis placed on motivation and productivity as part of the in-school program.

70% of those surveyed approved in principle of compulsory apprenticeship, chiefly for reasons of perceived higher standards of workmanship and education. Employers recommended gradual implementation of such a policy and one noted that compulsory apprenticeship would necessitate " a hard look at entrance qualifications".

Continuing Education

Virtually all employers responded with enthusiasm when surveyed on continuing education needs and preferences. High tech topics (for instance, computerization, new materials and techniques) dominated lists of suggested upgrading areas across the trades. Most (81%) felt that Holland College, alone or in collaboration with interest groups, employers, manufacturers, and others, was well-placed to deliver continuing education courses to the trades. Winter months and evenings (48% and 36% respectively) appear to be the most convenient times for such courses to take place. Most (78%) of those surveyed said that the costs of continuing education should be shared, with government (35%), employers (27%), and journeymen (19%) the most-cited contributor-beneficiaries.

Ratios

Questions on trade-specific ratios elicited the most adamantly held opinions and, ironically, no clear trends or solutions. 34 (51%) of participants expressed satisfaction with the present ratio requirements, 20 (30%) said they were too low (i.e., journeymen could accomodate more apprentices), and 13 (19%) opted for "too high" (i.e., there are too many journeymen per apprentice). Proportionately more "union shop" employers stated the ratios were too high, and 38% of this group felt that ratios were used as a means to control entry into the labour market. On both the high and low side of the equation, it is remarkable that few employers saw ratios as a measure of training quality or a safety device. Instead, employers cited economical and managerial reasons for and against the status quo.

69% of respondents felt that the Apprenticehsip Advisory Board (with varying inputs) could fairly determine ratios. 57% of the sample expressed themselves satisfied with current levels of enforcement, while 19% would like to see more on the job enforcement. Of the 13 employers who opted for more enforcement, 5 (38%) were unionized and 5 (38%) were in the electrical trade (2 unionized, 3 not). 100% of the 7 who prefer less enforcement or self-policing were non-union shops with no representation from electrical trades. (The fact that 100% of those who prefer less enforcement or self policing are from the non-unionized sector may indicate a true inclination towards an "honour" system or may simply stem from the fact that the survey has proportionately higher representation from non-union employers.) Unionized shops dominated (80%, including 2 electrical firms) in the "flexible" (i.e., requiring slight enforcement) category, however.

The final "ratio" picture that emerges from this survey is one of general satisfaction, with problem areas such as enforcement needing attention in certain compulsory trades (i.e., the electrical trade, where ratios are higher than average and where 7 out of the 13 electrical firms surveyed expressed dissatisfaction).

New Designations and Specialties

Employers' suggestions regarding the expansion of apprenticeship to new trades and specialties reveal the pressures exerted on the workplace by technological developments and the trend to specialization. 30 employers (45% of the sample) made suggestions for new trades. Of these, 13 (19% of total survey, 43% of those who made suggestions) said that specialty training should be left to post-certification upgrading and 2 (3% of total survey, 7% of those who made suggestions) stated that specialties should be offered to apprentices as electives, not core material. 7 (10% of sample) respondents voted strongly against new "splinter" designations and specialty training, stating that they preferred a "generalist" approach.

Finance

When asked who should cover the costs of apprenticeship if the federal government caps or reduces its funding, the largest proportion (30%) of the sample stated they thought the status quo was the best and most equitable arrangement. 43% said that employers should not be expected to pay more; 2, or 3%, noted that larger employer contributions would simply result in fewer trainees. Apprentices were named 25% of the time as a likely source of additional funding and 23% suggested that the provincial government should contribute more. One employer stated that the program could simply be made more efficient, and thus more cost effective, with the adoption of better screening techniques and management practices. A few respondents also suggested that if tuition fees for apprentices were introduced, some sort of financial aid (for instance, bursaries, scholarships, or student loans) should also be considered.

When asked how the costs of apprenticeship should ideally be apportioned, a full 57% opted for the status quo as a "fair split". Virtually all respondents recognized the responsibility of all parties, including government and themselves, to pay their share either directly or indirectly, in view of apprenticeship's contribution to the maintenance of a skilled and reliable workforce.

APPRENTICE QUESTIONNAIRE

Size of sample: 45 (14% of total registered apprentices at year end, 1990)
Self-administered, January-February 1991

Avenues to Apprenticeship

Most trainees (35.5%) find out about apprenticeship in high school, either through a guidance counsellor or from more direct exposure (for example, vocational course or cooperative education projects). Most chose apprenticeship because it was the only or the most accessible type of training available in the field. 20% also cited the "learn and earn" capacity as a reason for choosing apprenticeship.

Educational Pre-requisites

Only one apprentice of the forty-five surveyed felt that the current Grade 10 entrance requirement is too high. Of the remainder, 19 think Grade 10 too low, 19 think it just right, and 6 had no opinion. Cross tabulation of the "just right" and "too low" respondents shows that 88.8% of carpentry students feel that Grade 10 is just right, while 50% or more of cooks, welders, electricians, plumbers, and motor vehicle repair students opted for "too low". 10 of the 19 students who think that Grade 10 is too low felt that Grade 12 was a more suitable pre-requisite. 8 of these same 19 cited a need for more preparation in math.

Screening and Recruiting Apprentices

A significant number (12, or 26.6%) of the sample had "no opinion" on equitable ways to screen incoming apprentices, suggesting either a reluctance to adopt finer screening procedures or, possibly, general satisfaction with the status quo. 12 (26.6%) apprentices recommended compulsory testing as a useful screen, and 8 (17.7%) suggested more or better counselling. 60% identified financial incentives of various types as a definite drawing card for prospective apprentices.

Equity of Access

23 (51%) of the 45 apprentices had "no opinion" on ways to encourage greater designated group participation, suggesting a high degree of reluctance on the part of those polled to change the status quo or, possibly, a simple lack of awareness of equity issues and options (even though the wording of the question included several possibilities). 6 apprentices stated that no special incentives were necessary or desirable and 3 comments indicated opposition to any participation on the part of designated

groups. All of these essentially negative responses serve to highlight the sensitive nature of equity issues and the need for any program which addresses equity to begin with education. 10 of the 45 apprentices, however, said financial incentives (either to the apprentice or to the employer) are an effective means of encouraging greater participation by designated groups.

Compulsory Apprenticeship

Over half (57.5%) of those polled approved of compulsory apprenticeship, citing, among other things, a perceived higher standard of workmanship and a greater commitment on the part of participants as reasons for approval.

Financial Considerations

88.8% of those surveyed said that (lack of) money was either an "important" (15.5%) or "very important" (73.3%) reason why some apprentices drop out of the program. 3 carpentry students also cited lack of competitve advantages after graduation as a significant deterrent to completion. When asked about financial measures which would act as incentives to participation, 34 of 45 (75.5%) cited elimination of unemployment insurance delays as a positive step. 11 of 45 suggested that provision of tax breaks to apprentices would be a "plus".

INSTRUCTOR QUESTIONNAIRE

Size of sample: 10 (100% of Block Release instructors)
Interview schedule, January-February 1991

Educational Pre-requisites

Most instructors (70%) identified functional illiteracy as a problem affecting the learning capacity and productivity of apprentices. Two instructors suggested raising the educational pre-requisite (for example, to Grade 12) as a solution to this problem. One recommended use of a math and English entrance examination. Four suggested that provision of practical math and English lessons during in-school training might be useful.

Compulsory Pre-apprenticeship

Most instructors (70%) supported the idea of compulsory pre-apprenticeship inasmuch as it operates as a screening device and introduction to apprenticeable trades.

Compulsory Apprenticeship

100% of those interviewed approved of compulsory apprenticeship. 8 out of 10 stated that it resulted in a higher standard of workmanship. 4 out of 10 cited health and safety benefits.

Promotion and Recruitment

Most instructors (60%) had suggestions on ways to improve the quality and commitment of incoming apprentices. Many comments centred on the trades' "image problem". Respondents mentioned improved publicity, more and better high school counselling, and more active participation in cooperative education projects, job fairs, etc., as a means to correct the public image of the trades and attract more and better recruits.

On-the-Job Training (OJT)

Most instructors (8, or 80%)feel that apprentices' OJT is inadequate, usually beacuse of inconsistent or poor on the job experience. 3 (37.5% of 8) identified better monitoring of OJT as a way to improve matters; another 3 (37.5% of 8) suggested that registration of ("licensed to train") employers might also make a positive contribution, but only if standards were strictly and evenly upheld.

Continuing Education

Most instructors (9 out of 10) had engaged in some sort of continuing education activities in the last five years. All responded enthusiastically with suggestions for further continuing education They identified new technologies (5, or 50%) and specialties (5, or 50%) as worthy of further study, and 8 out of 10 suggested that Holland College, independently or in cooperation with manufacturers, was best placed to develop and deliver continuing education courses. Most (7 out of 10) felt that money was the chief impediment preventing the greater participation of journeymen in continuing education and 50% of the sample felt that government subsidies might help remove this barrier.

APPENDIX D:

ACKNOWLEDGEMENTS AND REVIEW COMMITTEE MEMBERSHIP

The Committee wishes to thank all of those who contributed to the apprenticeship review, including those who made submissions or consented to interviews, those who participated in surveys, and the staff of the Department of Industry Apprenticeship Branch, Human Resource Development Division, and Government Services Library.

REVIEW COMMITTEE MEMBERS

Lawrence Coffin, Chairman

Harry Snow, Fitzgerald and Snow Limited

Lou Bradley, P.E.I. Federation of Labour,
Carpenters' Local 1338, (Apprenticeship Advisory Board)

Francis Reid, Construction Association of P.E.I.,
P.E.I. Federation of Labour, (Apprenticeship Advisory Board)

Ray McBride, P.E.I. Council of Labour, IBEW Local 1432

Linda Gallant, P.E.I. Advisory Council on the Status of Women

Peter McGonnell, P.E.I. Department of Industry

George Power, Holland College

W. J. Power, Employment and Immigration Canada

Louis Dalton, P.E.I. Department of Industry, Secretary

Brenda Brady, Researcher